

HCS-4100/50 Series Fully Digital Congress System

Fully Digital Congress System



Installation and Operating Manual

V 1.0

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- Contents may change without prior announcement
- All technical specifications are guideline data and not guaranteed features
- Taiden Co., Ltd. is not responsible for any damage caused by improper use of this manual
- The equipment must be connected to earth!
- This product conforms to the rules of the European directive 2004/108/EC.
- To protect your hearing, avoid high pressure level on earphones. Adjust to a lower and convenient level.
- If any detailed information is needed, please contact your local agent or TAIDEN service center in your region. Any feedback, advice and suggestion about the products is appreciated
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Important Safety Instructions

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, hot air outlet conduits registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not bypass the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult a qualified electrician for a technically correct matching of socket and plug.
10. Protect the power cord from being walked on or pinched, particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
15. Do not place the equipment on any uneven or unstable stand; original product package or appropriate package should be used to avoid damage caused by strong impacts during transportation.
16. Power supply cords:
America, Japan: AC 110V~120V 60Hz
Asia, Europe: AC 220V~240V 50Hz
17. The quantity of connected transceivers in one system should not exceed prescribed quantity. For service, please contact the nearest TAIDEN Service Center.
18. All TAIDEN products are guaranteed for 3 years excluding the following cases:
 - A. All damage or malfunction caused by human negligence;
 - B. Damage or malfunction caused by improper operating by operator;
 - C. Parts damage or loss caused by disassembling the product by non-authorized personnel.
19. Use ONLY specified connection cable to connect the system equipment.
20. Upon receipt of the product, please fill out the Warranty Card enclosed and post it to TAIDEN Service Center nearby in your region.



TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS EQUIPMENT TO RAIN OR MOISTURE.

CAUTION: To reduce the risk of electric shock, DO NOT open covers, no user serviceable parts inside. Refer servicing to qualified service personnel only.

This label appears on the rear of the unit due to space limitations.



The lightning flash with an arrowhead symbol, with an equilateral triangle, is intended to alert the user to the presence of uninsulated 'dangerous voltage' within the products enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation mark within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING: To reduce the risk of fire or electric shock, DO NOT expose units to rain or moisture.

Important Safety Instructions



Attention: Installation should be performed by qualified service personnel only in accordance with the National Electrical or applicable local codes.



Power Disconnect: Units with or without ON – OFF switch have power supplied to the unit whenever the power cord is inserted into the power source; however, the unit is operational only when the ON – OFF switch is in the ON position. The power cord is the main power disconnect for all units

WARNING: The apparatus should be connected to a mains socket outlet with a protective earthing connection.

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Installation & User Guide

About this manual

This manual is a comprehensive guide to the installation and operation of the TAIDEN HCS-4100/50 Fully Digital Congress System (FDCS). It includes the detailed description of the functions and interfaces of the HCS-4100/50 system components, system connection and installation, system set-up and operation.

The manual is divided into the following chapters:

Chapter 1: Introduction

An introduction to the HCS-4100/50 FDCS system composition, technology, functions and features.

Chapter 2: Congress main unit

Detailed descriptions of the functions and indications, installation and connection, configuration and operation of the HCS-4100/50 FDCS control main unit (CMU) and the extension main unit (EMU).

Chapter 3: Congress unit

Detailed descriptions of the functions and indications, installation and connection, configuration and operation of the HCS-4100/50 FDCS discussion units and the voting units.

Chapter 4: Interpretation unit

Detailed descriptions of the functions and indications, installation and connection, configuration and operation of the HCS-4100/50 FDCS interpretation unit.

Chapter 5 : System connection and basic configuration

Detailed descriptions of the connection between system devices. An example is taken to introduce the basic configuration of the congress system.

Chapter 6: Peripheral equipment and accessories

An introduction to the HCS-4100/50 peripheral equipment and the accessories, e.g. stem microphone and earphones.

Chapter 7: Environment and maintenance

An introduction to the work environment and the maintenance of HCS-4100/50 FDCS.

Chapter 8: Specifications

Main technical parameters of HCS-4100/50 FDCS.

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This manual is applicable to:

■ Congress control main units

HCS-4100MA/50 fully digital standard congress system main unit

discussion - voting - 64CHs - 256x32 LCD - optical fiber interface

HCS-4100MB/50 fully digital standard congress system main unit

discussion - voting - 64CHs - 256x32 LCD

HCS-4100MC/50 fully digital standard congress system main unit

discussion - voting - 256x32 LCD

■ Discussion units

G-series: tabletop/ flush-mounted discussion units

HCS-4886C/50 chairman unit

discussion - 5 voting keys - IC card sign-in - 64CHs simultaneous interpretation - 256x32 LCD

HCS-4886D/50 delegate unit

discussion - 5 voting keys - IC card sign-in - 64CHs simultaneous interpretation - 256x32 LCD

HCS-4887D/50 delegate unit

discussion - 5 voting keys - IC card sign-in - 256 x 32 LCD

HCS-4888D/50 delegate unit

discussion - 5 voting keys - Chinese panel

HCS-4888DE/50 delegate unit

discussion - 5 voting keys - English panel

HCS-4886X_S/50 operator unit

for intercom function - tulip gold panel + grey base

Note: At choice for all discussion units of this series (except operation unit): tulip gold panel + grey base or tulip gold panel + black base.

E-series: tabletop/ flush-mounted foldaway discussion units

HCS-4380SC/50 chairman unit

discussion - 5 voting keys - IC card sign-in - 64CHs simultaneous interpretation - 256x32 LCD

HCS-4380SD/50 delegate unit

discussion - 5 voting keys - IC card sign-in - 64CHs simultaneous interpretation - 256x32 LCD

HCS-4380SX/50 operator unit

for intercom function

HCS-4382SD/50 delegate unit

discussion - 5 voting keys - 256x32 LCD

HCS-4370SD/50 delegate unit

discussion - 5 voting keys - IC card sign-in - 64CHs simultaneous interpretation - Chinese panel

HCS-4370SDE/50 delegate unit

discussion - 5 voting keys - IC card sign-in - 64CHs simultaneous interpretation - English panel

HCS-4371SD/50 delegate unit

discussion only

Note: HCS-4380SC/50 is the chairman unit for all discussion units of this series.

Q-series: flush-mounted discussion units with protective cover

HCS-4365C/50 chairman unit

Discussion - 5 voting keys - IC card sign-in - 64CHs simultaneous interpretation - 256x32 LCD

HCS-4365D/50 delegate unit

discussion - 5 voting keys - IC card sign-in - 64CHs simultaneous interpretation - 256x32 LCD

HCS-4366D/50 delegate unit

discussion - 5 voting keys - IC card sign-in - 64CHs simultaneous interpretation - Chinese panel

HCS-4366DE/50 delegate unit

discussion - 5 voting keys - IC card sign-in - 64CHs simultaneous interpretation - English panel

M-series: flush-mounted discussion units with protective cover

HCS-4360C/50 chairman unit

discussion - 5 voting keys - IC card sign-in - 64CHs simultaneous interpretation - Chinese panel

HCS-4360CE/50 chairman unit

discussion - 5 voting keys - IC card sign-in - 64CHs simultaneous interpretation - English panel

HCS-4360D/50 delegate unit

discussion - 5 voting keys - IC card sign-in - 64CHs simultaneous interpretation - Chinese panel

HCS-4360DE/50 delegate unit

discussion - 5 voting keys - IC card sign-in - 64CHs simultaneous interpretation - English panel

HCS-4361D/50 delegate unit

discussion - 5 voting keys - Chinese panel

HCS-4361DE/50 delegate unit

discussion - 5 voting keys - English panel

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HCS-4362D/50 delegate unit

discussion - 64CHs simultaneous interpretation

HCS-4363D/50 delegate unit

discussion only

D-series: tabletop discussion units

HCS-4330C/50 chairman unit

discussion - 5 voting keys - IC card sign-in - 64CHs simultaneous interpretation - Chinese panel

HCS-4330CE/50 chairman unit

discussion - 5 voting keys - IC card sign-in - 64CHs simultaneous interpretation - English panel

HCS-4330D/50 delegate unit

discussion - 5 voting keys - IC card sign-in - 64CHs simultaneous interpretation - Chinese panel

HCS-4330DE/50 delegate unit

discussion - 5 voting keys - IC card sign-in - 64CHs simultaneous interpretation - English panel

HCS-4331CB/50 chairman unit

discussion - 64CHs simultaneous interpretation - speaking timer display

HCS-4331DB/50 delegate unit

discussion - 64CHs simultaneous interpretation - speaking timer display

HCS-4332D/50 delegate unit

discussion - 5 voting keys - Chinese panel

HCS-4332DE/50 delegate unit

discussion - 5 voting keys - English panel

HCS-4333CB/50 chairman unit

discussion - speaking timer display - request to speak display

HCS-4333DB/50 delegate unit

discussion - speaking timer display - request to speak display

HCS-4335D/50 delegate unit

discussion - 64CHs simultaneous interpretationx2 - 2 ID

Note: this series discussion unit has 2 colors available: gray and silver.

L-series: flush-mounted discussion units with protective cover

HCS-4320C/50 chairman unit

discussion - 5 voting keys - IC card sign-in - 64CHs simultaneous interpretation – stem microphone - Chinese panel

HCS-4320CE/50 chairman unit

discussion - 5 voting keys - IC card sign-in - 64CHs simultaneous interpretation - stem microphone - English panel

HCS-4320HC/50 chairman unit

discussion - 5 voting keys - IC card sign-in - 64CHs simultaneous interpretation - handheld microphone - Chinese panel

HCS-4320HCE/50 chairman unit

discussion - 5 voting keys - IC card sign-in - 64CHs simultaneous interpretation - handheld microphone - English panel

HCS-4320D/50 delegate unit

discussion - 5 voting keys - IC card sign-in - 64CHs simultaneous interpretation – stem microphone - Chinese panel

HCS-4320DE/50 delegate unit

discussion - 5 voting keys - IC card sign-in - 64CHs simultaneous interpretation – stem microphone - English panel

HCS-4320HD/50 delegate unit

discussion - 5 voting keys - IC card sign-in - 64CHs simultaneous interpretation - handheld microphone - Chinese panel

HCS-4320HDE/50 delegate unit

discussion - 5 voting keys - IC card sign-in - 64CHs simultaneous interpretation - handheld microphone - English panel

HCS-4321D/50 delegate unit

discussion - 5 voting keys - 64CHs simultaneous interpretation – stem microphone - Chinese panel

HCS-4321DE/50 delegate unit

discussion - 5 voting keys - 64CHs simultaneous interpretation – stem microphone - English panel

HCS-4321HD/50 delegate unit

discussion - 5 voting keys - 64CHs simultaneous interpretation - handheld microphone - Chinese panel

HCS-4321HDE/50 delegate unit

discussion - 5 voting keys - 64CHs simultaneous interpretation - handheld microphone - English panel

HCS-4322D/50 delegate unit

discussion - 64CHs simultaneous interpretation – stem microphone

HCS-4322HD/50 delegate unit

discussion - 64CHs simultaneous interpretation - handheld microphone

C-series: only operative with HCS-4340/50 multi-function connector

HCS-4341CA/50 flush-mounted chairman unit

discussion only - with stem microphone - gray

HCS-4341CA_S/50 flush-mounted chairman unit

discussion only - with stem microphone - silver

HCS-4341DA/50 flush-mounted delegate unit

discussion only - with stem microphone - gray

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HCS-4341DA_S/50 flush-mounted delegate unit

discussion only - with stem microphone - silver

HCS-4341CB/50 boundary chairman unit

discussion only - black

HCS-4341DB/50 boundary delegate unit

discussion only - black

HCS-4341HD/50 flush-mounted delegate unit

discussion only - with handheld microphone - black

Note: this series chairman unit is only operative with the HCS-4340CA/50 multi-function connector, the delegate unit is only operative with the HCS-4340DA/DT/50 multi-function connector, and the handheld delegate unit is only operative with the HCS-4340HDA/50 multi-function connector.

N-series: only operative with HCS-4340/50 multi-function connector

HCS-4841NC/50 flush-mounted chairman unit

discussion only

HCS-4841ND/50 flush-mounted delegate unit

discussion only

HCS-4842N/50 flush-mounted channel selector

64CHs simultaneous interpretation - channel number display LCD

Note: this series discussion unit has 2 colors available: gray and silver; this series chairman unit is only operative with the HCS-4340CA/50 multi-function connector, the delegate unit is only operative with the HCS-4340DA/DT/50 multi-function connector, and the channel selector is only operative with the HCS-4340/50 multi-function connector.

■ **Wired voting units**

N series:

HCS-4843NCT/50 voting unit for chairman

flush-mounted - 3 voting keys - Chinese panel

HCS-4843NCTE/50 voting unit for chairman

flush-mounted - 3 voting keys - English panel

HCS-4843NDT/50 voting unit for delegate

flush-mounted - 3 voting keys - Chinese panel

HCS-4843NDTE/50 voting unit for delegate

flush-mounted - 3 voting keys - English panel

HCS-4843NCTK/50 voting unit for chairman

flush-mounted - 3 voting keys - IC card sign-in - Chinese panel

HCS-4843NCTKE/50 voting unit for chairman

flush-mounted - 3 voting keys - IC card sign-in - English panel

HCS-4843NDTK/50 voting unit for delegate

flush-mounted - 3 voting keys - IC card sign-in - Chinese panel

HCS-4843NDTKE/50 voting unit for delegate

flush-mounted - 3 voting keys - IC card sign-in - English panel

HCS-4843NCF/50 voting unit for chairman

flush-mounted - 5 voting keys - Chinese panel

HCS-4843NCFE/50 voting unit for chairman

flush-mounted - 5 voting keys - English panel

HCS-4843NDF/50 voting unit for delegate

flush-mounted - 5 voting keys - Chinese panel

HCS-4843NDFE/50 voting unit for delegate

flush-mounted - 5 voting keys - English panel

HCS-4843NCFK/50 voting unit for chairman

flush-mounted - 5 voting keys - IC card sign-in - Chinese panel

HCS-4843NCFKE/50 voting unit for chairman

flush-mounted - 5 voting keys - IC card sign-in - English panel

HCS-4843NDFK/50 voting unit for delegate

flush-mounted - 5 voting keys - IC card sign-in - Chinese panel

HCS-4843NDFKE/50 voting unit for delegate

flush-mounted - 5 voting keys - IC card sign-in - English panel

Note: the abovementioned voting units of this series are only operative with the HCS-4340A/50 multi-function connector, 2 colors are available: gray and silver.

HCS-4843DF_S/50 voting unit for delegate

flush-mounted - 5 voting keys - silver- Chinese panel - HCS-4340A/50 multi-function connector not required

HCS-4843DFK_S/50 voting unit for delegate

flush-mounted - 5 voting keys - IC card sign-in - silver - Chinese panel - HCS-4340A/50 multi-function connector not required

HCS-4843DFE_S/50 voting unit for delegate

flush-mounted - 5 voting keys - silver- English panel - HCS-4340A/50 multi-function connector not required

HCS-4843DFKE_S/50 voting unit for delegate

flush-mounted - 5 voting keys - IC card sign-in - silver - English panel - HCS-4340A/50 multi-function connector not required

HCS-4368/50 series:

HCS-4368CT/50 tabletop voting unit for chairman

3 voting keys - 256x32 graphic LCD - waterproof - 12000V antistatic

HCS-4368DT/50 tabletop voting unit for delegate

3 voting keys - 256x32 graphic LCD - waterproof - 12000V antistatic

HCS-4368CT/FM/50 flush-mounted voting unit for chairman

3 voting keys - 256x32 graphic LCD - waterproof - 12000V antistatic - protective cover

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HCS-4368DT/FM/50 flush-mounted voting unit for delegate

3 voting keys - 256x32 graphic LCD - waterproof - 12000V antistatic - protective cover

HCS-4368NCT/50 tabletop voting unit for chairman

3 voting keys - waterproof - 12000V antistatic - Chinese panel

HCS-4368NCTE/50 tabletop voting unit for chairman

3 voting keys - waterproof - 12000V antistatic - English panel

HCS-4368NDT/50 tabletop voting unit for delegate

3 voting keys - waterproof - 12000V antistatic - Chinese panel

HCS-4368NDTE/50 tabletop voting unit for delegate

3 voting keys - waterproof - 12000V antistatic - English panel

HCS-4368NCT/FM/50 flush-mounted voting unit for chairman

3 voting keys - waterproof - 12000V antistatic - protective cover - Chinese panel

HCS-4368NCTE/FM/50 flush-mounted voting unit for chairman

3 voting keys - waterproof - 12000V antistatic - protective cover - English panel

HCS-4368NDT/FM/50 flush-mounted voting unit for delegate

3 voting keys - waterproof - 12000V antistatic - protective cover - Chinese panel

HCS-4368NDTE/FM/50 flush-mounted voting unit for delegate

3 voting keys - waterproof - 12000V antistatic - protective cover - English panel

HCS-4368CF/50 tabletop voting unit for chairman

5 voting keys - 256x32 graphic LCD - waterproof

HCS-4368DF/50 tabletop voting unit for delegate

5 voting keys - 256x32 graphic LCD – waterproof

HCS-4368CFK/50 tabletop voting unit for chairman

5 voting keys - 256x32 LCD - IC card sign-in

HCS-4368DFK/50 tabletop voting unit for delegate

5 voting keys - 256x32 LCD - IC card sign-in

HCS-4368CF/FM/50 flush-mounted voting unit for chairman

5 voting keys - 256x32 graphic LCD - waterproof - protective cover

HCS-4368DF/FM/50 flush-mounted voting unit for delegate

5 voting keys - 256x32 graphic LCD - waterproof - protective cover

HCS-4368CFK/FM/50 flush-mounted voting unit for chairman

5 voting keys - 256x32 LCD - IC card sign-in - protective cover

HCS-4368DFK/FM/50 flush-mounted voting unit for delegate

5 voting keys - 256x32 LCD - IC card sign-in - protective cover

HCS-4368NCF/50 tabletop voting unit for chairman

5 voting keys - waterproof - Chinese panel

HCS-4368NCFE/50 tabletop voting unit for chairman

5 voting keys - waterproof - English panel

HCS-4368NDF/50 tabletop voting unit for delegate

5 voting keys – waterproof - Chinese panel

HCS-4368NDFE/50 tabletop voting unit for delegate

5 voting keys – waterproof - English panel

HCS-4368NCF/FM/50 flush-mounted voting unit for chairman

5 voting keys - waterproof - protective cover - Chinese panel

HCS-4368NCFE/FM/50 flush-mounted voting unit for chairman

5 voting keys - waterproof - protective cover - English panel

HCS-4368NDF/FM/50 flush-mounted voting unit for delegate

5 voting keys - waterproof - protective cover - Chinese panel

HCS-4368NDFE/FM/50 flush-mounted voting unit for delegate

5 voting keys - waterproof - protective cover - English panel

Note: this series tabletop voting unit has only one color: red;

this series flush-mounted voting unit has 2 colors available: gray and silver.

■ HCS-4340/50 multi-function connector

HCS-4340CA/50 multi-function connector

can be connected to 1 chairman discussion unit, 1 voting unit and 1 channel selector

HCS-4340DA/50 multi-function connector

can be connected to 1 delegate discussion unit, 1 voting unit and 1 channel selector

HCS-4340HDA/50 multi-function connector

can be connected to 1 handheld delegate discussion unit, 1 voting unit and 1 channel selector

HCS-4340B/50 multi-function connector

can be connected to 4 channel selectors

HCS-4340DT/50 multi-function connector

can be connected to 2 delegate discussion units and 2 channel selectors

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■ Interpretation unit

HCS-4385K2/50 interpretation unit

IC card sign-in - 64CHs simultaneous interpretation - 256x64 LCD

■ Pluggable microphone (for congress unit)

MS24EMB1G/S 240 mm pluggable (grey/silver)

MS33EMB1G/S 330 mm pluggable (grey/silver)

MS41EMB1G/S 410 mm pluggable (grey/silver)

MS47EMB1G/S 470 mm pluggable (grey/silver)

■ Pluggable microphone (for interpretation unit)

MS33DPB1S 330 mm pluggable (silver)

MS41DPB1S 410 mm pluggable (silver)

MS47DPB1S 470 mm pluggable (silver)

■ Clip-on Lavalier Microphone

HCS-1020 Clip-on Lavalier Microphone

■ Earphone

EP-820AS/BS single earphone

EP-920BS earbuds

HCS-5100PA headphone

Chapter 1 Introduction

1.1 Summary

TAIDEN revolutionizes the congress systems, introducing both the latest fully digital technologies and network techniques into congress systems by applying its multi-channel audio digital transmitting technology MCA-STREAM to its HCS-4100/50 Fully Digital Congress System (FDCS). HCS-4100/50 also integrates perfectly the TAIDEN Congress Sign-in System and the Intelligent Central Control System and takes undeniably the leadership in providing comprehensive and efficient congress system solutions.

To simplify installation and upgrade system reliability both "Closed Loop - Daisy Chain" connection topology and dual connection backup have been opted for.

Supporting 48 kHz audio sampling rate, all 64 channels feature perfect sound quality with a frequency response of 30 Hz~20 kHz.

HCS-4100/50 FDCS consists of congress main unit (CMU), contribution units and application software. CMU includes the congress control main unit and the extension main unit(s) (EMU). Contribution units include discussion units, voting units, simultaneous interpretation units, channel selectors, etc. The application software contains a number of software modules, performing different tasks.

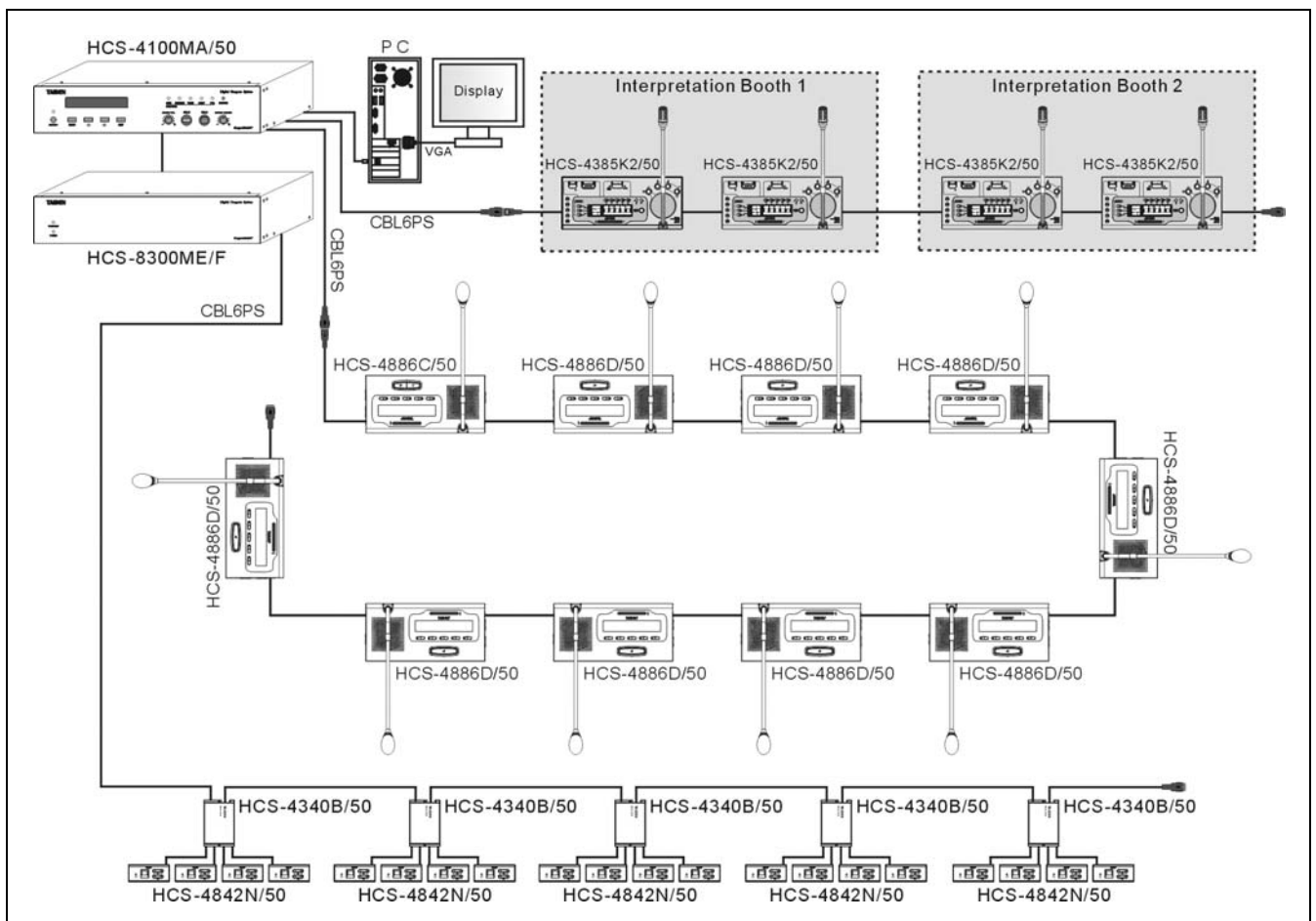


Figure 1.1 System overview

This system consists of one or more of the following items:

■ Congress control main units

HCS-4100MA/50 fully digital standard congress system main unit

discussion - voting - 64CHs - 256x32 LCD - optical fiber interface

HCS-4100MB/50 fully digital standard congress system main unit

discussion - voting - 64CHs - 256x32 LCD

HCS-4100MC/50 fully digital standard congress system main unit

discussion - voting - 256x32 LCD

■ Discussion units

G-series: tabletop/ flush-mounted discussion units

HCS-4886C/50 chairman unit

discussion - 5 voting keys - IC card sign-in - 64CHs simultaneous interpretation - 256x32 LCD

HCS-4886D/50 delegate unit

discussion - 5 voting keys - IC card sign-in - 64CHs simultaneous interpretation - 256x32 LCD

HCS-4887D/50 delegate unit

discussion - 5 voting keys - IC card sign-in - 256 x 32 LCD

HCS-4888D/50 delegate unit

discussion - 5 voting keys - Chinese panel

HCS-4888DE/50 delegate unit

discussion - 5 voting keys - English panel

HCS-4886X_S/50 operator unit

for intercom function - tulip gold panel + grey base

Note: At choice for all discussion units of this series (except operation unit): gold panel + grey base or tulip gold panel + black base.

E-series: tabletop/ flush-mounted foldaway discussion units

HCS-4380SC/50 chairman unit

discussion - 5 voting keys - IC card sign-in - 64CHs simultaneous interpretation - 256x32 LCD

HCS-4380SD/50 delegate unit

discussion - 5 voting keys - IC card sign-in - 64CHs simultaneous interpretation - 256x32 LCD

HCS-4380SX/50 operator unit

for intercom function

HCS-4382SD/50 delegate unit

discussion - 5 voting keys - 256x32 LCD

HCS-4370SD/50 delegate unit

discussion - 5 voting keys - IC card sign-in - 64CHs simultaneous interpretation - Chinese panel

HCS-4370SDE/50 delegate unit

discussion - 5 voting keys - IC card sign-in - 64CHs simultaneous interpretation - English panel

HCS-4371SD/50 delegate unit

discussion only

Note: HCS-4380SC/50 is the chairman unit for all discussion units of this series.

Q-series: flush-mounted discussion units with protective cover

HCS-4365C/50 chairman unit

Discussion - 5 voting keys - IC card sign-in - 64CHs simultaneous interpretation - 256x32 LCD

HCS-4365D/50 delegate unit

discussion - 5 voting keys - IC card sign-in - 64CHs simultaneous interpretation - 256x32 LCD

HCS-4366D/50 delegate unit

discussion - 5 voting keys - IC card sign-in - 64CHs simultaneous interpretation - Chinese panel

HCS-4366DE/50 delegate unit

discussion - 5 voting keys - IC card sign-in - 64CHs simultaneous interpretation - English panel

M-series: flush-mounted discussion units with protective cover

HCS-4360C/50 chairman unit

discussion - 5 voting keys - IC card sign-in - 64CHs simultaneous interpretation - Chinese panel

HCS-4360CE/50 chairman unit

discussion - 5 voting keys - IC card sign-in - 64CHs simultaneous interpretation - English panel

HCS-4360D/50 delegate unit

discussion - 5 voting keys - IC card sign-in - 64CHs simultaneous interpretation - Chinese panel

HCS-4360DE/50 delegate unit

discussion - 5 voting keys - IC card sign-in - 64CHs simultaneous interpretation - English panel

HCS-4361D/50 delegate unit

discussion - 5 voting keys - Chinese panel

HCS-4361DE/50 delegate unit

discussion - 5 voting keys - English panel

HCS-4362D/50 delegate unit

discussion - 64CHs simultaneous interpretation

HCS-4363D/50 delegate unit

discussion only

D-series: tabletop discussion units**HCS-4330C/50** chairman unit

discussion - 5 voting keys - IC card sign-in - 64CHs simultaneous interpretation - Chinese panel

HCS-4330CE/50 chairman unit

discussion - 5 voting keys - IC card sign-in - 64CHs simultaneous interpretation - English panel

HCS-4330D/50 delegate unit

discussion - 5 voting keys - IC card sign-in - 64CHs simultaneous interpretation - Chinese panel

HCS-4330DE/50 delegate unit

discussion - 5 voting keys - IC card sign-in - 64CHs simultaneous interpretation - English panel

HCS-4331CB/50 chairman unit

discussion - 64CHs simultaneous interpretation - speaking timer display

HCS-4331DB/50 delegate unit

discussion - 64CHs simultaneous interpretation - speaking timer display

HCS-4332D/50 delegate unit

discussion - 5 voting keys - Chinese panel

HCS-4332DE/50 delegate unit

discussion - 5 voting keys - English panel

HCS-4333CB/50 chairman unit

discussion - speaking timer display - request to speak display

HCS-4333DB/50 delegate unit

discussion - speaking timer display - request to speak display

HCS-4335D/50 delegate unit

discussion - 64CHs simultaneous interpretationx2 - 2 ID

Note: this series discussion unit has 2 colors available: gray and silver.

L-series: flush-mounted discussion units with protective cover

HCS-4320C/50 chairman unit

discussion - 5 voting keys - IC card sign-in - 64CHs simultaneous interpretation – stem microphone - Chinese panel

HCS-4320CE/50 chairman unit

discussion - 5 voting keys - IC card sign-in - 64CHs simultaneous interpretation – stem microphone - English panel

HCS-4320HC/50 chairman unit

discussion - 5 voting keys - IC card sign-in - 64CHs simultaneous interpretation - handheld microphone - Chinese panel

HCS-4320HCE/50 chairman unit

discussion - 5 voting keys - IC card sign-in - 64CHs simultaneous interpretation - handheld microphone - English panel

HCS-4320D/50 delegate unit

discussion - 5 voting keys - IC card sign-in - 64CHs simultaneous interpretation – stem microphone - Chinese panel

HCS-4320DE/50 delegate unit

discussion - 5 voting keys - IC card sign-in - 64CHs simultaneous interpretation – stem microphone - English panel

HCS-4320HD/50 delegate unit

discussion - 5 voting keys - IC card sign-in - 64CHs simultaneous interpretation - handheld microphone - Chinese panel

HCS-4320HDE/50 delegate unit

discussion - 5 voting keys - IC card sign-in - 64CHs simultaneous interpretation - handheld microphone - English panel

HCS-4321D/50 delegate unit

discussion - 5 voting keys - 64CHs simultaneous interpretation – stem microphone - Chinese panel

HCS-4321DE/50 delegate unit

discussion - 5 voting keys - 64CHs simultaneous interpretation – stem microphone - English panel

HCS-4321HD/50 delegate unit

discussion - 5 voting keys - 64CHs simultaneous interpretation - handheld microphone - Chinese panel

HCS-4321HDE/50 delegate unit

discussion - 5 voting keys - 64CHs simultaneous interpretation - handheld microphone - English panel

HCS-4322D/50 delegate unit

discussion - 64CHs simultaneous interpretation – stem microphone

HCS-4322HD/50 delegate unit

discussion - 64CHs simultaneous interpretation - handheld microphone

C-series: only operative with HCS-4340/50 multi-function connector

HCS-4341CA/50 flush-mounted chairman unit

discussion only - with stem microphone - gray

HCS-4341CA_S/50 flush-mounted chairman unit

discussion only - with stem microphone - silver

HCS-4341DA/50 flush-mounted delegate unit

discussion only - with stem microphone - gray

HCS-4341DA_S/50 flush-mounted delegate unit

discussion only - with stem microphone - silver

HCS-4341CB/50 boundary chairman unit

discussion only - black

HCS-4341DB/50 boundary delegate unit

discussion only - black

HCS-4341HD/50 flush-mounted delegate unit

discussion only - with handheld microphone - black

Note: this series chairman unit is only operative with the HCS-4340CA/50 multi-function connector, the delegate unit is only operative with the HCS-4340DA/DT/50 multi-function connector, and the handheld delegate unit is only operative with the HCS-4340HDA/50 multi-function connector.

N-series:

HCS-4841NC/50 flush-mounted chairman unit

discussion only

HCS-4841ND/50 flush-mounted delegate unit

discussion only

HCS-4842N/50 flush-mounted channel selector

64CHs simultaneous interpretation - channel number display LCD

Note: this series discussion unit has 2 colors available: gray and silver; this series chairman unit is only operative with the HCS-4340CA/50 multi-function connector, the delegate unit is only operative with the HCS-4340DA/DT/50 multi-function connector, and the channel selector is only operative with the HCS-4340/50 multi-function connector.

■ Wired voting units

N series: must cooperate with HCS-4340A/50 multi-function connector

HCS-4843NCT/50 voting unit for chairman

flush-mounted - 3 voting keys - Chinese panel

HCS-4843NCTE/50 voting unit for chairman

flush-mounted - 3 voting keys - English panel

HCS-4843NDT/50 voting unit for delegate

flush-mounted - 3 voting keys - Chinese panel

HCS-4843NDTE/50 voting unit for delegate

flush-mounted - 3 voting keys - English panel

HCS-4843NCTK/50 voting unit for chairman

flush-mounted - 3 voting keys - IC card sign-in - Chinese panel

HCS-4843NCTKE/50 voting unit for chairman

flush-mounted - 3 voting keys - IC card sign-in - English panel

HCS-4843NDTK/50 voting unit for delegate

flush-mounted - 3 voting keys - IC card sign-in - Chinese panel

HCS-4843NDTKE/50 voting unit for delegate

flush-mounted - 3 voting keys - IC card sign-in - English panel

HCS-4843NCF/50 voting unit for chairman

flush-mounted - 5 voting keys - Chinese panel

HCS-4843NCFE/50 voting unit for chairman

flush-mounted - 5 voting keys - English panel

HCS-4843NDF/50 voting unit for delegate

flush-mounted - 5 voting keys - Chinese panel

HCS-4843NDFE/50 voting unit for delegate

flush-mounted - 5 voting keys - English panel

HCS-4843NCFK/50 voting unit for chairman

flush-mounted - 5 voting keys - IC card sign-in - Chinese panel

HCS-4843NCFKE/50 voting unit for chairman

flush-mounted - 5 voting keys - IC card sign-in - English panel

HCS-4843NDFK/50 voting unit for delegate

flush-mounted - 5 voting keys - IC card sign-in - Chinese panel

HCS-4843NDFKE/50 voting unit for delegate

flush-mounted - 5 voting keys - IC card sign-in - English panel

Note: the above of this series voting units are only operative with the HCS-4340A/50 multi-function connector, 2 colors available: gray and silver.

HCS-4843DF_S/50 voting unit for delegate

flush-mounted - 5 voting keys - silver- Chinese panel - HCS-4340A/50 multi-function connector not required

HCS-4843DFK_S/50 voting unit for delegate

flush-mounted - 5 voting keys - IC card sign-in - silver - Chinese panel - HCS-4340A/50 multi-function connector not required

HCS-4843DFE_S/50 voting unit for delegate

flush-mounted - 5 voting keys - silver- English panel - HCS-4340A/50 multi-function connector not required

HCS-4843DFKE_S/50 voting unit for delegate

flush-mounted - 5 voting keys - IC card sign-in - silver - English panel - HCS-4340A/50 multi-function connector not required

HCS-4368/50 series:

HCS-4368CT/50 tabletop voting unit for chairman

3 voting keys - 256x32 graphic LCD - waterproof - 12000V antistatic

HCS-4368DT/50 tabletop voting unit for delegate

3 voting keys - 256x32 graphic LCD - waterproof - 12000V antistatic

HCS-4368CT/FM/50 flush-mounted voting unit for chairman

3 voting keys - 256x32 graphic LCD - waterproof - 12000V antistatic - protective cover

HCS-4368DT/FM/50 flush-mounted voting unit for delegate

3 voting keys - 256x32 graphic LCD - waterproof - 12000V antistatic - protective cover

HCS-4368NCT/50 tabletop voting unit for chairman

3 voting keys - waterproof - 12000V antistatic - Chinese panel

HCS-4368NCTE/50 tabletop voting unit for chairman

3 voting keys - waterproof - 12000V antistatic - English panel

HCS-4368NDT/50 tabletop voting unit for delegate

3 voting keys - waterproof - 12000V antistatic - Chinese panel

HCS-4368NDTE/50 tabletop voting unit for delegate

3 voting keys - waterproof - 12000V antistatic - English panel

HCS-4368NCT/FM/50 flush-mounted voting unit for chairman

3 voting keys - waterproof - 12000V antistatic - protective cover - Chinese panel

HCS-4368NCTE/FM/50 flush-mounted voting unit for chairman

3 voting keys - waterproof - 12000V antistatic - protective cover - English panel

HCS-4368NDT/FM/50 flush-mounted voting unit for delegate

3 voting keys - waterproof - 12000V antistatic - protective cover - Chinese panel

HCS-4368NDTE/FM/50 flush-mounted voting unit for delegate

3 voting keys - waterproof - 12000V antistatic - protective cover - English panel

HCS-4368CF/50 tabletop voting unit for chairman

5 voting keys - 256x32 graphic LCD - waterproof

HCS-4368DF/50 tabletop voting unit for delegate

5 voting keys - 256x32 graphic LCD – waterproof

HCS-4368CFK/50 tabletop voting unit for chairman

5 voting keys - 256x32 LCD - IC card sign-in

HCS-4368DFK/50 tabletop voting unit for delegate

5 voting keys - 256x32 LCD - IC card sign-in

HCS-4368CF/FM/50 flush-mounted voting unit for chairman

5 voting keys - 256x32 graphic LCD - waterproof - protective cover

HCS-4368DF/FM/50 flush-mounted voting unit for delegate

5 voting keys - 256x32 graphic LCD - waterproof - protective cover

HCS-4368CFK/FM/50 flush-mounted voting unit for chairman

5 voting keys - 256x32 LCD - IC card sign-in - protective cover

HCS-4368DFK/FM/50 flush-mounted voting unit for delegate

5 voting keys - 256x32 LCD - IC card sign-in - protective cover

HCS-4368NCF/50 tabletop voting unit for chairman

5 voting keys - waterproof - Chinese panel

HCS-4368NCFE/50 tabletop voting unit for chairman

5 voting keys - waterproof - English panel

HCS-4368NDF/50 tabletop voting unit for delegate

5 voting keys – waterproof - Chinese panel

HCS-4368NDFE/50 tabletop voting unit for delegate

5 voting keys – waterproof - English panel

HCS-4368NCF/FM/50 flush-mounted voting unit for chairman

5 voting keys - waterproof - protective cover - Chinese panel

HCS-4368NCFE/FM/50 flush-mounted voting unit for chairman

5 voting keys - waterproof - protective cover - English panel

HCS-4368NDF/FM/50 flush-mounted voting unit for delegate

5 voting keys - waterproof - protective cover - Chinese panel

HCS-4368NDFE/FM/50 flush-mounted voting unit for delegate

5 voting keys - waterproof - protective cover - English panel

Note: this series tabletop voting unit has only one color: red;
this series flush-mounted voting unit has 2 colors available:
gray and silver.

■ HCS-4340/50 multi-function connector

HCS-4340CA/50 multi-function connector

can be connected to 1 chairman discussion unit, 1 voting unit and 1 channel selector

HCS-4340DA/50 multi-function connector

can be connected to 1 delegate discussion unit, 1 voting unit and 1 channel selector

HCS-4340HDA/50 multi-function connector

can be connected to 1 handheld delegate discussion unit, 1 voting unit and 1 channel selector

HCS-4340B/50 multi-function connector

can be connected to 4 channel selectors

HCS-4340DT/50 multi-function connector

can be connected to 2 delegate discussion units and 2 channel selectors

■ Interpretation unit

HCS-4385K2/50 interpretation unit

IC card sign-in - 64CHs simultaneous interpretation - 256x64 LCD

■ **Pluggable microphone** (for congress unit)

MS24EMB1G/S	240 mm pluggable (grey/silver)
MS33EMB1G/S	330 mm pluggable (grey/silver)
MS41EMB1G/S	410 mm pluggable (grey/silver)
MS47EMB1G/S	470 mm pluggable (grey/silver)

■ **Pluggable microphone** (for interpretation unit)

MS33DPB1S	330 mm pluggable (silver)
MS41DPB1S	410 mm pluggable (silver)
MS47DPB1S	470 mm pluggable (silver)

■ **Clip-on Lavalier Microphone**

HCS-1020	Clip-on Lavalier Microphone
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■ **Earphone**

EP-820AS/BS	single earphone
EP-920BS	earbuds
HCS-5100PA	headphone

1.2 System technology

● MCA-STREAM digital audio processing and transmission technology

TAIDEN proprietary MCA-STREAM technology is the essential data transmission technology in the HCS-4100/50 system, e.g. transmitting up to 64 CHs high quality digital, control and other information data over a single dedicated 100 Mbps high speed 6-pin cable. Every unit - congress main unit, congress/discussion unit, language distribution unit, interpretation unit - is equipped with a high performance CPU as the kernel of the advanced technology infrastructure.

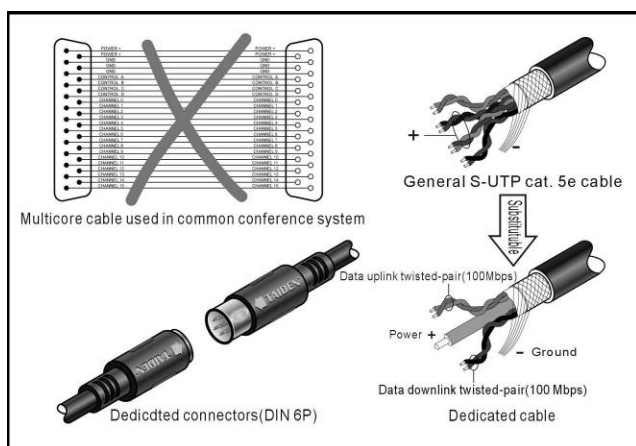


Figure 1.2 Simple and reliable system connection

By virtue of using the MCA-STREAM technology, HCS-4100/50 FDCS carries out the following features:

- Ease of system cabling and enhancement of system reliability by utilizing a single dedicated 6-pin cable to transmit up to 64 CHs floor and interpretation language signals, avoiding the necessity to use complicated multi-core cables;
- Prevention of noise - caused by the ground wire in stereo projects - as well of interference brought by other equipment (such as stage lights, recording apparatus, etc.). SNR reaches 96 dB and isolation is better than 85 dB. The frequency response verges on 30 Hz-20 kHz; making the system sound approaching CD quality;
- Provision of Hi-Fi sound quality, even in long range transmission, which makes the system widely suitable for various applications such as mini/medium type meeting rooms, large venues, stadiums, etc.

● HCS-4100/50 system hardware structure

HCS-4100/50 system hardware is an embedded structure based on dual high performance CPUs. Even in stand-alone mode, HCS-4100/50 is competent for the management of various meetings via several basic congress management facilities, such as basic microphone management, electronic management, electronic voting, multilingual simultaneous interpretation, and automatic video tracking, etc.

In the figure below:

Audio CODEC: Dedicated audio coding and decoding chip of discussion unit and interpretation unit

TDN: Dedicated digital communication chip for TAIDEN digital congress system networking

DAC: Digital-to-analog conversion chip

RISC: Central processing chipset of congress main unit, controlling the DSP and AD/DA conversion IC to provide 2-channel audio line in/out and record in/out facilities

Based on advanced hardware, HCS-4100/50 system features high security software, easy to operate, convenient to maintain and to upgrade. The meeting is fully controlled and monitored by the operator.

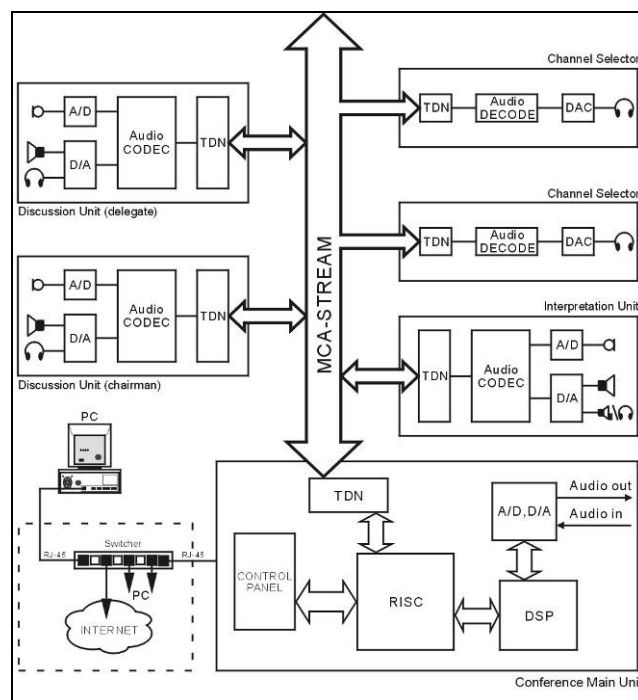


Figure 1.3 HCS-4100/50 system hardware structure

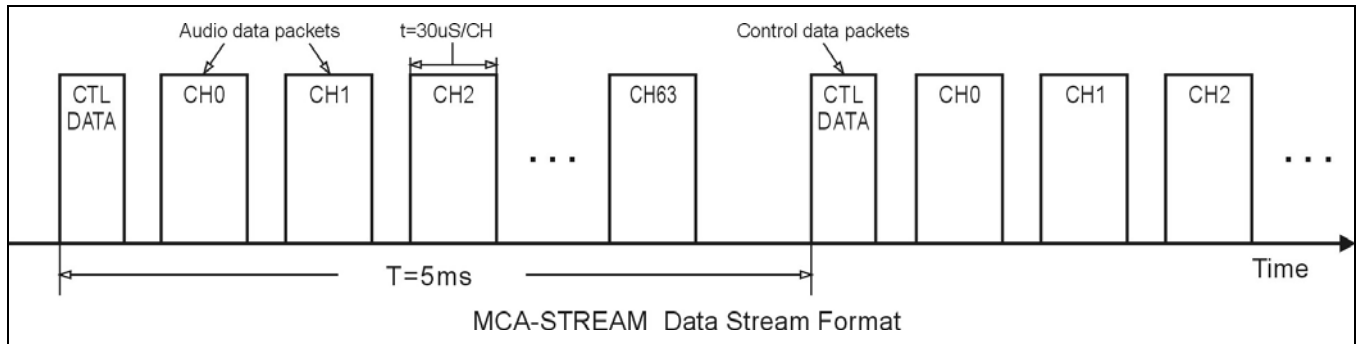


Figure 1.4 MCA-STREAM data stream format

● Modular system structure

Any kind of configuration can be set up just by daisy-chaining HCS-4100/50 fully digital congress units. The modular system structure of HCS-4100/50 is applicable to any kind of congress and provides an accurate and efficient solution. Additional congress units can be added when needed. More system functions are available in connection with a PC and control software.

● Dual main unit hot spare

HCS-4100/50 hardware systems can be operated on hot standby with a master and a backup main unit. A typical application is shown in Fig. 5.11 featuring an EMU to power the contribution units. If the master main unit fails, the backup unit starts to operate automatically as master and takes over the meeting. Thus continuation of the conference is guaranteed.

● HCS-4100/50 system software infrastructure

HCS-4100/50 system software is designed for the prevalent Client/Server structure. Client and server communicate with each other by using TCP/IP network protocol, ensuring both data security and transmission efficiency. Client and server software can run on the same computer as well as on different computers in the same LAN, enabling the operator to manage the congress more flexibly.

HCS-4100/50 system software imports the hot-spare dual server structure by using a main server and a back-up server. While the main server is processing, data are stored real time on the back-up server to prevent congress related information from loss in case of a crash of the main server. As a result, security and reliability of the congress system are improved vitally.

● Duplicate and backup connection via "Closed Loop - Daisy Chain" connection

For important meetings, especially those which consider connection reliability as their leading point, HCS-4100/50 Series Digital Congress System adopts advanced "Closed Loop - Daisy Chain" connection topology, connecting the last unit in the loop back to the congress main unit. Therefore, any congress unit in the loop has two connection paths to the congress main unit. As a result, breakdown or replacement of a congress unit and connection failure of a cable will not influence other congress units. As such the system features the advantages of a daisy chain connection system with its simpleness of cabling as well as the improvement of the system reliability through duplicate and backup connection functions. In HCS-4100/50 Series Digital Congress System, only the congress main unit supports "Closed Loop - Daisy Chain" connection topology, and only one ring connection allows.

● Advanced TCP/IP communication protocol in PC control

In a PC controlled system, the congress main unit and the PC use the advanced TCP/IP protocol. Theoretically, the communication distance between the PC and the CMU can be infinite. This is decisively different to traditional RS-232 connection modes where the distance between the PC and the CMU cannot exceed 15 meters. TCP/IP enables remote control, remote diagnosis and remote update.

By using network techniques, congress systems are linked tightly to the rapidly developing internet technology, computer science and communication technology. Users enjoy the convenience of the contemporary leading techniques, e.g. by using the compatible wireless LAN techniques (802.11) - such as

PDAs - which can be used to control a congress system wirelessly. The import of network topology also makes the congress system merge with intelligent building networks.

● CMU and EMU

The congress main unit forms the core of the entire congress system. It provides power supply to all contribution units and serves as key component to link system hardware to application software. One CMU has two (6P-DIN) trunk-line cable outlets, each outlet accommodates up to 30 congress units (Congress units with graphic LCD, such as HCS-4886D/50, have relatively larger power consumption; at most 20 of such congress units can be connected). If more congress units are needed, additional extension main units (EMU) HCS-8300ME or HCS-8300ME/F are required. Each EMU has four (6P-DIN) trunk-line cable outlets, each outlet accommodates up to 30 congress units. HCS-4100/50 system maximum capacity: 378 simultaneous interpretation units (63 interpretation booths, 6 interpretation units in each), 4096 discussion/voting units and any number of channel selectors.

In stand-alone mode without a PC, the CMU carries out basic management facilities, simultaneous interpretation, electronic voting and 64 CHs digital audio transmission. By operating HCS-4100/50 application software in PC-controlled mode, more comprehensive management facilities can be implemented.

● Contribution units

Contribution units are units used by participants to contribute to a congress and include: discussion units (chairman/delegate), voting units, interpretation units, channel selectors, etc. The basic contribution unit has discussion, voting and channel select facility. The upgraded units combine discussion, voting and channel select, furthermore built-in loudspeaker, IC-card reader and graphic 256x32/256x64 LCD with back-lighting, forming a wide variety of product series. The chairman unit has a microphone priority facility with a priority key to switch off or to mute active units. If required, different functions can be allocated to delegate stations, including listening, discussion, request to speak, voting, IC-card sign-in, short

message, information display, etc.

The interpretation unit consists of a graphic 256x64 LCD with back-lighting, an IC-card reader, a 63-channel selector, a built-in loudspeaker, a pluggable microphone, headphone sockets, etc. It supports direct and relay interpretation (with auto-relay facility) operation mode and optional voice input/output modes, simplifying interpreter's work remarkably.

A discussion unit - chairman or delegate unit with discussion facility - is the important component of the HCS-4100/50 system. Depending on the option, discussion units can be divided into foldaway, tabletop, flush-mounted and component. Each style consists of various products, which enriches significantly users' choices.

Low power consumption design is adopted for HCS-4100/50 and HCS-8300 series congress units, convenient for wiring and installation. All congress units of HCS-4100/50 and HCS-8300 series (except HCS-8318 series) are supplied by the main unit's 6P-DIN interface. Since the power capacity of the 6P-DIN interface is limited, it must be ensured during installation that the added up values of a) the total power consumption of all congress units connected in each path and b) the power loss in extension cables do in no case exceed the maximum possible value delivered by each 6P-DIN interface. Otherwise the system will not work properly or automatic protection will be triggered (see 5.1.1 connection principles).

● Application software

HCS-4100/50 application software is comprehensive, reliable and user-friendly. It is also an easy-care software system which helps the operator to manage the congress efficiently from the very beginning of a meeting until the post-meeting work. Once the PC installed and the HCS-4100/50 application software integrated into the FDCS, the operator manages centrally all aspects of the congress. The operation turns out to be easy and efficient.

HCS-4100/50 application software is modular software with various functional modules: System Setup Management Module, Microphone Management Module, Voting Management Module, Simultaneous Interpretation Module, Intercom Software Module, Synchronous Audio Recording Management Module, Synchronous Video Recording Management Module, Multi-user Congress Control Management Module,

Dual PC Server Hot Spare Module, Agenda Control Module, Dual System Main Unit Hot Spare Module, etc.



● Installation and transportation

Easy installation is another vital feature of HCS-4100/50 FDCS. All HCS-4100/50 digital congress units are equipped with a 1.5-meter-6P-DIN cable (with a male connector) and a 0.6-meter- 6P-DIN cable (with a female connector) except HCS-4330/50 series which has a 2.1-meter-6P-DIN cable (with a male connector) and a socket on the housing. All congress units are connected together in a daisy chain configuration and connected to the main unit by the dedicated extension cable.

1.3 Functions

● Discussion

- “Active microphones” (1/2/3/4), sets the number of delegates permitted to speak at the same time, and sets speaking time limit function.
- Five discussion modes:
 - ◆ “OPEN” mode, microphone key with request-to-speak registration (AUTO)
 - ◆ “OVERRIDE” mode, microphone key control with override of the active microphones (FIFO)
 - ◆ “VOICE” mode, acoustic active sensitivity and automatic switch-off time adjustable continuously, built-in “flash-on” technology, immediate microphone activation on speaking
 - ◆ “APPLY” mode, delegate applies to speak by pressing apply key, delegate only speaks when operator or chairman approved his application
 - ◆ “PTT” mode, press microphone key to talk
- VIP unit configurable:
 - ◆ By using contribution unit configuration module in HCS-4100/50 application software, a maximum of 32 delegate units can be set as VIP units
 - ◆ The VIP unit can be activated freely in any mode, as long as the total number of active microphones does not exceeded 6 (including chairman / delegate / VIP)
- Gain and EQ (5 band) of each microphone adjustable separately, fitting the individual orator’s voice to achieve perfect speech pickup any time.
- 4 audio effect modes prestored:
NORMAL/PRESS/THEATER/PARLIAMENT
- Integrated 80 Hz (18 dB/octave) high-pass filter (low-cut switch) to cut low frequency elements from the audio when needed.

● 64 CHs simultaneous interpretation

- Supporting 48 kHz audio sampling rate, all 64 channels with a frequency response of 30 Hz~20 kHz;

- HCS-4100/50 system can accommodate 378 simultaneous interpretation units (63 interpretation booths, 6 interpretation units in each), and provide 64 CHs (including floor language) simultaneous interpretation;
- The interpretation unit is equipped with a uni-directional electret condenser microphone. The gain of each microphone is adjustable separately, fitting the individual interpreter’s voice to achieve perfect speech pickup any time. It features also 5 pre-defined input channels and 3 output interpretation channels with their corresponding short keys, a high-contrast 256×64 graphic LCD with back-lighting, a built-in IC-card reader as well as an audio record & playback function.
- Delegates use channel select to listen to different languages. In cooperation with channel selectors and/or infrared language distribution system, a larger listening audience is enabled to join the meeting.

● Voting

- If the system is equipped with a chairman unit with a graphic LCD, parliamentary voting (YES/NO/ABSTAIN) can be implemented even without a PC. The result is displayed on the LCD of every contribution unit.
- Cooperating with corresponding software modules, multiform voting can be implemented:
 - ◆ For/Against
 - ◆ Parliamentary: YES/NO/ABSTAIN
 - ◆ Multiple choice/Opinion poll: 1/2/3/4/5
 - ◆ Audience response/Rating: --/0/+/++
 - ◆ Parliamentary (NPPV):
YES/NO/ABSTAIN/NPPV
 - ◆ Appraisal:
Satisfied (Four options: perfectly satisfied, satisfied, basically satisfied, unsatisfied)
(Three options: satisfied, basically satisfied, unsatisfied)
(Two options: satisfied, unsatisfied)
Qualified (2/3/4 options)
Competent (2/3/4 options)

● Complex IC-card sign-in

HCS-4100/50 system takes the leading role in using the complex IC-card sign-in techniques for congress sign-in, i.e. delegates can use the same IC-card for both touched and contactless sign-in. This TAIDEN patent technology has not only simplified authentication and sign-in of the delegates, but has also eased operator's delegate management. Delegate information is displayed on the congress units if they are equipped with an IC-card reader and an LCD display. More functions can be achieved when cooperating with HCS-4100/50 system software.

● Information display

- By using the information display module of the HCS-4100/50 application software, congress title, content, congress related information as well as meeting related notice can be displayed on a large screen display (or projector).
- Contribution units equipped with graphic 256x32 LCD show :
 - ◆ Active microphone amount, request amount, delegates' signed-in and voting results, etc.
 - ◆ Messages (messages from the system administrator to all or part of participants)
 - ◆ Multilingual (simplified/traditional Chinese and English, etc) menu

● Automatic video tracking system

Automatic video tracking can be carried out if video switch unit and camera are installed.

● Comprehensive congress management

- The routine and trivial congress steps are handled in perfect order by the congress management software. Meanwhile various information is processed and published real-time.
- Powerful control functions for venue circumstances, congress procedure and delegate arrangement, etc.

● Remote control and remote diagnosis

Using advanced TCP/IP network protocol in the communication between the PC and the CMU - to implement remote control, remote diagnosis and

remote update for the congress system - for easy central control of a multi-room configuration.

● Intercom

If an operator unit is in the system, the built-in intercom facility allows bidirectional vocal communication between congress participants, interpreters and operators. Extra equipment is not required.

● Multi-room configuration function

Several main units can be operated as several independent congress systems or be combined together easily as a large multi-room congress system configuration.

● Seamless Integration with the congress sign-in system and the central control system

Optical fiber interface is integrated into the HCS-4100MA/50 congress main unit, in cooperation with HCS-8300 series extension main unit, audio input interface or audio output device. Thus several mutually distant congress rooms can be combined and be operated as one venue.

Dual connection backup is implemented between the HCS-4100MA/50 congress main unit and the HCS-8300 series extension main unit via optical fiber and CAT5 cable.

● Seamlessly Integrated with congress sign-in system and central control system

The seamless integration of HCS-4100/50 FDCS with the TAIDEN congress sign-in system and the intelligent central control system provides comprehensive congress system solutions. Besides the basic congress management (discussion, voting, simultaneous interpretation, video tracking, etc.), it also provides congress sign-in and access control for the congress participants. Furthermore, it gives complete facilities to manage the congress system's power supply and the peripheral multimedia equipment, surrounding lights, projector display and sound equipment. The easy incorporation of peripheral components upgrades the system into an advanced intelligent congress system with integrated solutions for conferencing, audio, lighting control etc.

- **Fully compatible with TAIDEN HCS-4100/20 Fully Digital Congress System and HCS-8300 Paperless Multi-media Congress System**

Fully compatible with TAIDEN HCS-4100/20 Fully Digital Congress System: HCS-4100/20 series congress units can be connected to the HCS-4100/50 system, and HCS-4100/50 series congress units can be connected to the HCS-4100/20 system (exclusive functions are only available with HCS-4100/50 contribution units).

Full compatibility also with TAIDEN HCS-8300 Paperless Multi-media Congress System: HCS-8300 series congress units can be connected to the HCS-4100/50 system, and HCS-4100/50 series congress units can be connected to the HCS-8300 system (exclusive functions are only available with HCS-8300 contribution units).

- **Other facilities**

- With the 8 channel digital/analog audio output device (several units cascable), multi-channel digital/analog audio signals are available as output signals for the infrared language distribution system or for recording
- Built-in self-detecting functions in each contribution unit for automatic detection of microphone and keys

1.4 Features

● System reliability

System reliability, as described below, has always been the guiding principle while designing HCS-4100/50 fully digital congress system:

- HCS-4100/50 system software imports the hot-spare dual server structure by operating the main server and the back-up server at the same time. While the main server is processing, data are stored real time on the back-up server to prevent congress related information from loss in case of a crash of the main server, thus improving security and reliability of the congress system remarkably.
- Dual connection backup is implemented between the HCS-4100MA/50 congress main unit and the HCS-8300 series extension main unit via optical fiber and CAT5 cable.
- "Closed Loop - Daisy Chain" connection topology: breakdown or replacement of a congress unit and connection failure of a cable will not influence other congress units.
- Built-in communication auto termination function to prevent system collapse if the TCP/IP cable is pulled out
- Auto recovery function, supports PnP
- If PC malfunction happens, the CMU will return to control status automatically and take over control of the meeting, ensuring continuation of the meeting process

● Technological progress

HCS-4100/50 FDCS - based on TAIDEN's proprietary development digital processing and transmitting technologies MCA-STREAM - adopts embedded hardware structure based on high performance dual CPUs. HCS-4100/50 system software is based on Client/Server and hot-spare dual server structure. CMU and PC use advanced TCP/IP protocol for communication, perfectly integrated to benefit from modern technologies.

Furthermore, congress sign-in system and intelligent central control system can be integrated into TAIDEN HCS-4100/50 FDCS to provide the first complete and efficient solution in the world.

● System operability

CMU controls efficiently: basic microphone control, simultaneous interpretation, video tracking - without the intervention of an operator.

With a PC and HCS-4100/50 system software, more functions can be achieved, including enhanced microphone control, simultaneous interpretation, delegate information management, sign-in control, meeting data management and distribution, voting control and output audio processing. HCS-4100/50 can also be set up according to user requirements.

HCS-4100/50 adopts Client/Server structure - the process of the meeting is controlled by the operator from any PC within the same LAN. If PC malfunction occurs, CMU will return to control status automatically and take over control of the meeting, ensuring continuation of the meeting.

● Outstanding expandability

The interpretation unit of HCS-4100/50 offers a maximum of 64 channels (including floor channel) and satisfies the requirements of large-scale international meetings: allocating a language for each channel, selecting a channel, interlock facility. The language of each channel can be released separately to avoid reciprocal interference and crosstalk. The system supports a maximum of 4096 congress units and an infinite number of channel selectors.

HCS-4100/50 system is modular: just daisy-chain HCS-4100/50 units to set-up a configuration. If extra system capacity is needed, units can be connected easily, starting from any access point.

● Economical and convenient installation

In virtue of the fully digital techniques of HCS-4100/50 system, system installation becomes simple and economical, especially in conjunction with the economical and durable HCS-4100/50 system dedicated 6-PIN cable (substitutable by shielded CAT5 cable). The cable, suitable for the requirements of any kind of meeting, transmits simultaneously up to 64 high quality audio signals, control data and information.

Every delegate unit is assigned an individual ID for convenient setup and perpetual prevention of double ID allocation.

System connection reliability is improved by the professional 6P-DIN standard plug and clasp which facilitates system installation as well as disassembly.

As a result of the daisy-chain design of the contribution units, insertion into the system can be done at any desired point, simplifying significantly equipment extension and maintenance.

● System maintenance

TAIDEN system software provides testing functions for online testing the operating conditions such as validity of the keys, LCD and microphones.

A detailed test report is issued for quick and simple maintenance of the system device.

Chapter 2 Congress main unit (CMU)

The Congress main unit (CMU) forms the core of the HCS-4100/50 fully digital congress system (FDCS), and provides power supply to all contribution units, meanwhile, serving as the key component to link up hardware with application software. In stand-alone mode without a PC, the CMU only carries out basic management facilities; while more comprehensive management facilities can be implemented in PC-controlled mode.

The devices that can be controlled by CMU includes: discussion units (chairman unit/delegate unit), voting units, interpretation units, channel selectors and video switch for automatic video tracking, etc. By cascade connecting EMUs, the HCS-4100/50 system can reach its maximum capacity: 378 simultaneous interpretation units, 4096 discussion/voting units and an infinite number of channel selectors.

Product types:

HCS-4100MA/50

fully digital standard congress system main unit
(with discussion - voting - 64CHs - 256x32 LCD - optical fiber interface)

HCS-4100MB/50

fully digital standard congress system main unit
(with discussion - voting - 64CHs - 256x32 LCD)

HCS-4100MC/50

fully digital standard congress system main unit
(with discussion - voting - 256x32 LCD)

2.1 Functions and indications

2.1.1 Front panel

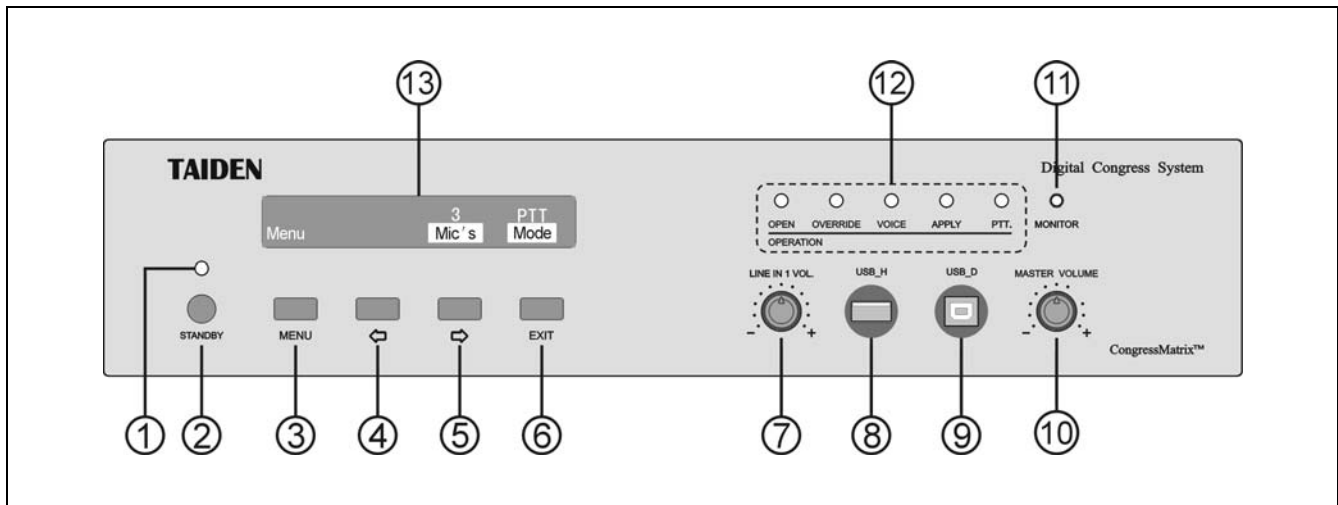


Figure 2.1 Front panel of HCS-4100M/50 CMU

Figure 2.1

1. Power light

- a. Switches to red in standby mode;
- b. Switches to blue when operating.

2. “STANDBY” button

3. “MENU” button

- a. The LCD displays the initial user interface: press this button to enter the LCD set-up menu;
- b. The LCD displays the set-up user interface: press this button to select the highlighted item or enter the submenu;
- c. The LCD displays the network configuration: press this button to select/deselect the numeric value.

4. “←” (Left) button

- In standby state, press this button to display current input audio spectrum;
- In the set-up interface of the LCD menu, press this button to cursor to the left.

5. “→” (Right) button

- In standby state, press this button to select the number of maximum active microphones.
- In the set-up interface of the LCD menu, press this button to cursor to the right.

6. “EXIT” button

- In standby state, press this button to select the operation mode of the microphones.
- In the set-up interface of the LCD menu, press this button to exit current menu.

7. LINE IN 1 electric level adjustment knob

8. A type USB interface

- To plug-in a USB stick.

9. Mini USB interface

- For connecting to PC.

10. “MASTER VOLUME”

Knob to adjust the master volume of the floor audio channel for the congress units

11. Monitoring earphone interface

- Earphone jack (Ø 3.5 mm).

12. Microphone operation mode indicator (“ O P E N ” / “ O V E R R I D E ” / “ V O I C E ” / “ A P P L Y ” / “ P T T ”)

- Corresponding indicator lights up according to selected mode.

13. Menu display

- 256×32 LCD displays main unit status and configuration menu.

2.1.2 Backside

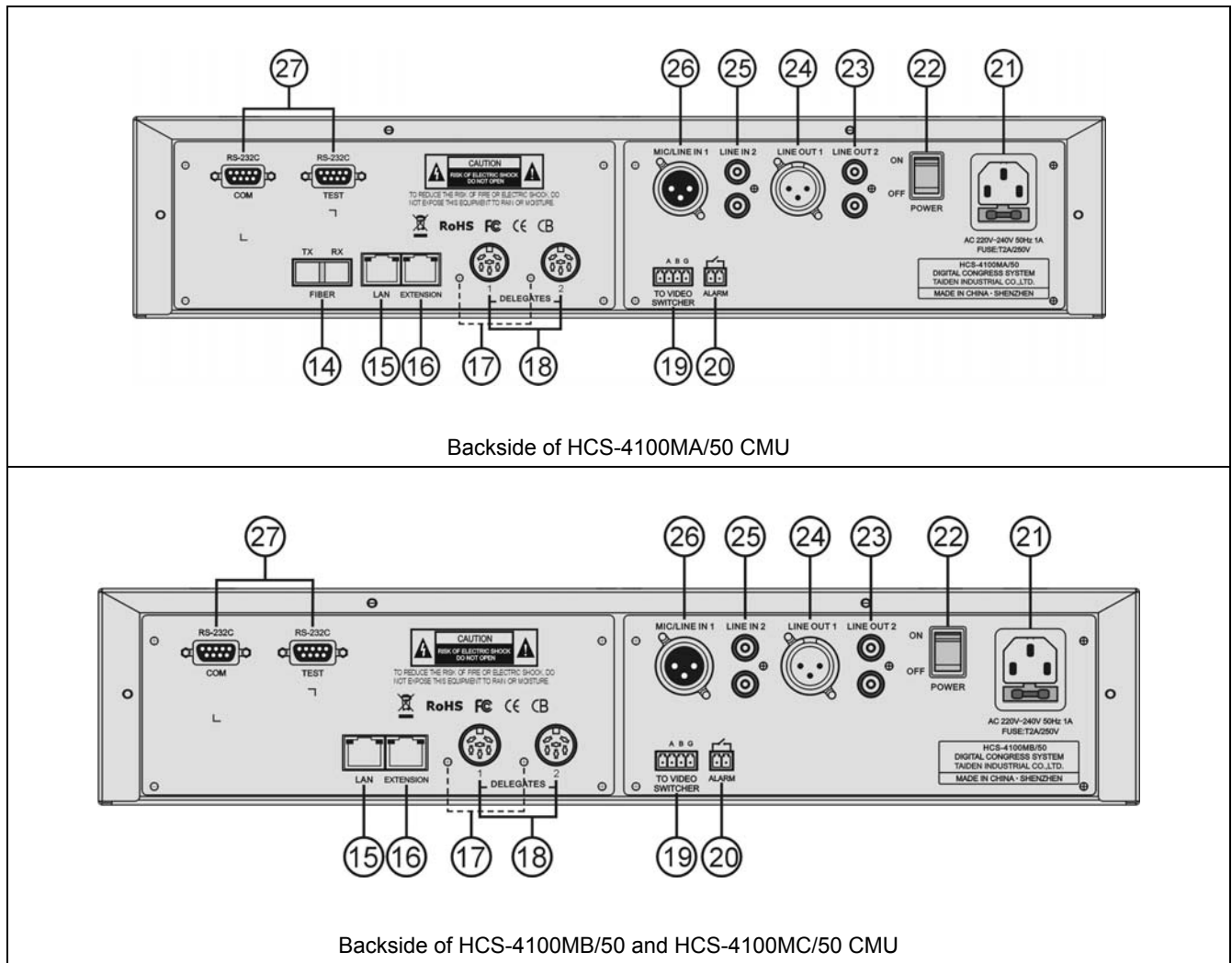


Figure 2.2 Backside of HCS-4100M/50 CMU

Figure 2.2

14. Fiber interface

- Connecting the conference main units of several distant conference rooms to combine as one conference room (bridging distance can reach tens of kilometers)

15. Ethernet interface (LAN)

- For communication between the conference main unit with the PC under TCP/IP protocol to realize remote controlling; furthermore, it enables access to WLAN to realize remote wireless controlling by wireless touch panel.

16. Extension interface

- To connect CMU to EMU and interconnect with audio input interface and audio output device; devices cascable

17. Contribution units ring connection LED

- When the output ring works properly, LED will flash; when the output ring breaks, the LED will go out.

18. Contribution units output interface (1-2, two routes)

19. Video switch interface

- When cooperating with video switch and dome camera, auto video tracking can be realized.

20. Fire alarm linked trigger interface

- +5 V voltage application** : all conference units will be switched off and display "ALARM";
- No voltage input or too low voltage**: conference units will return to the status preceding "ALARM".

21. Power supply

22. Mains switch

- 23. **"LINE OUT 2"** (RCAx2 unbalanced output)
- 24. **"LINE OUT 1"** (3 cord XLR balanced output)
- 25. **"LINE IN 2"** (RCAx2 unbalanced input)
- 26. **"LINE IN 1"** (3 cord XLR balanced input)
- 27. **RS-232C port x 2**
 - "COM" port is used for connecting to a central control system for central controlling, as well as for system diagnosis;
 - "TEST" port is used for updating and monitoring.

2.2 Installation

The CMU can be fixed in a standard 19-inch cabinet. The CMU is equipped with a pair of fixing brackets ①. First unscrew the lateral screws ② from the housing. Then fasten the brackets with these screws and put the CMU in the cabinet. Finally fix the four holes ③ up with screws.

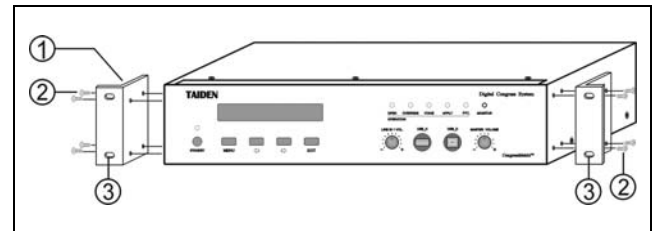


Figure 2.3 Installation of the CMU

In addition, 1U metal stripes are included as decoration to be installed between the CMUs in the cabinet. It is also good for the ventilation and cooling off. Fix up the four holes ③ with screws.

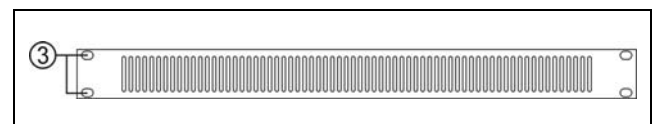


Figure 2.4 Decoration of cabinet

2.3 Connection

2.3.1 To contribution units

HCS-4100/50 series CMU has 2 outlet (6P-DIN) trunk-line cable sockets for connecting to contribution units. HCS-4100/50 series contribution units are equipped with a cable with a standard 6P-DIN male connector.

When connecting the CMU to the contribution units, just connect the male connector of the first unit to the socket of the CMU.

For a longer distance between the conference unit and the CMU/EMU, a CPL6PS extension cable can be used. One end of this cable is equipped with a 6P-DIN male connector, the opposite end is equipped with a female connector. Just connect the female connector of the cable to the conference unit, and connect the male connector to the output of the main unit.

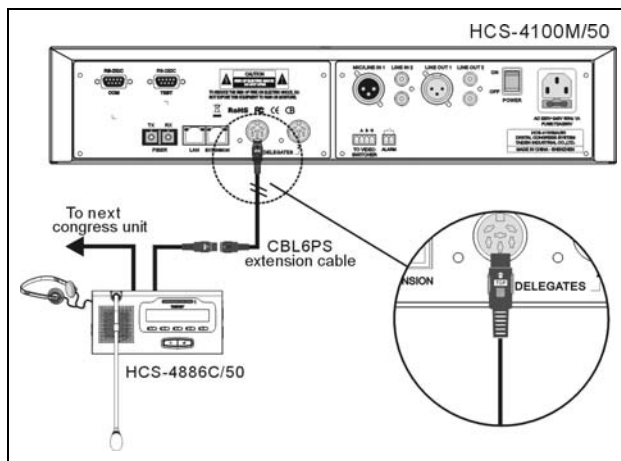


Figure 2.5 Discussion unit connected to the CMU or the EMU

For "daisy chain - closed loop" connection, just connect the last contribution unit back to the CMU via a CBL6PP extension cable (both ends of this cable are equipped with a 6P-DIN male connector). In HCS-4100/50 Series Digital Congress System, only the congress main unit supports "Closed Loop - Daisy Chain" connection topology, and only one ring connection allows.

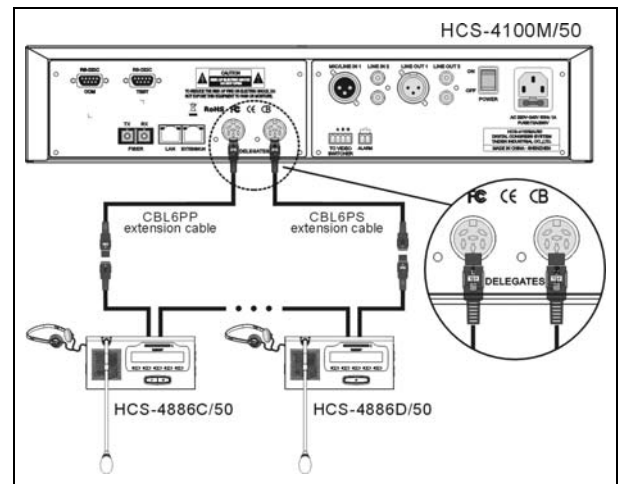


Figure 2.6 "Daisy chain – closed loop" connection topology

One HCS-4100/50 CMU contains 2x 6P-DIN outlet trunk-line cable connectors, and each outlet connector can output 60W. Since the power capacity of a 6P-DIN interface is limited, it must be ensured that, during the installation, the sum of the total power consumption of all the congress units connected to every single 6P-DIN interface plus the power loss in the extension cables does not surpass the power limit of each 6P-DIN interface. Otherwise the system will not work properly or automatic protection will occur (see 5.1.1 connection principles).

2.3.2 To PA

The CMU of the HCS-4100/50 series FDCS has a pair of RCA symmetrical audio outputs “LINE OUT 2” and a 3 cord XLR balanced output “LINE OUT 1”, to be connected to a PA. Connecting the RCA symmetrical audio outputs or the 3 cord XLR balanced output of the HCS-4100M/50 to the input port of the PA via an audio wire will be OK.

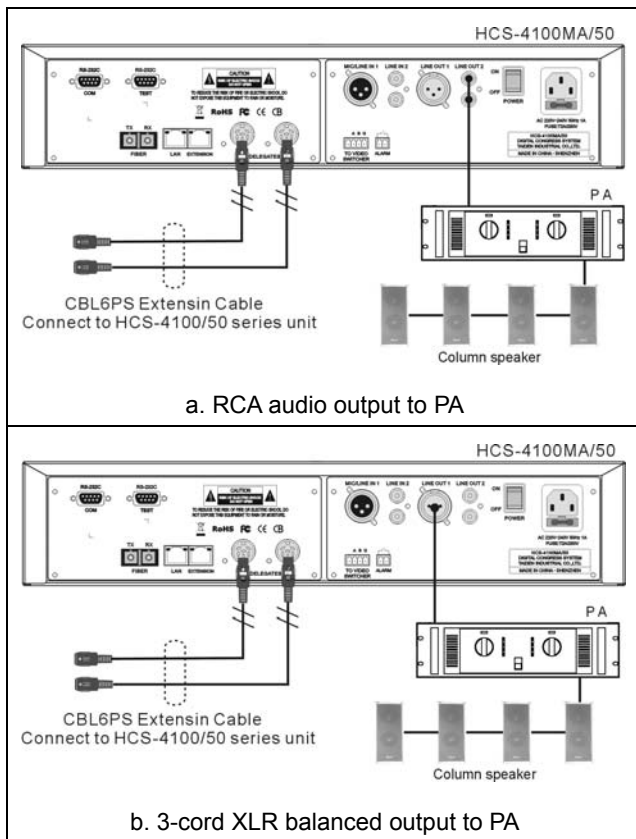


Figure 2.7 CMU connecting to PA

2.3.3 To fiber device

HCS-4100MA/50 has a pair of fiber interfaces, and can be connected to the HCS-4100MA/50, HCS-8300 series CMU/EMU, to the audio input unit and to the audio output unit. Two distant meeting rooms (distance can reach tens of kilometers) can be combined as one meeting room.

The connection between the fiber interfaces is shown in the following figure:

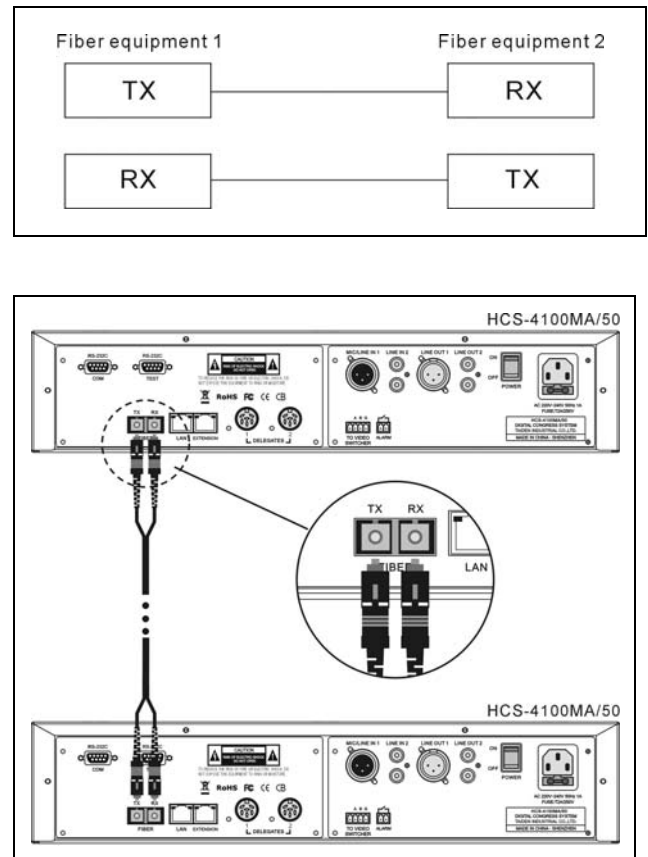


Figure 2.8 Connecting between CMUs via fiber cable

2.4 Configuration and operation

After installation and connection and prior to the meeting, the CMU should be configured through the dialog menu and button. The term “interface” used hereinafter means the information displayed on the LCD as the “user” interface.

The menu structure is shown in the following figure:

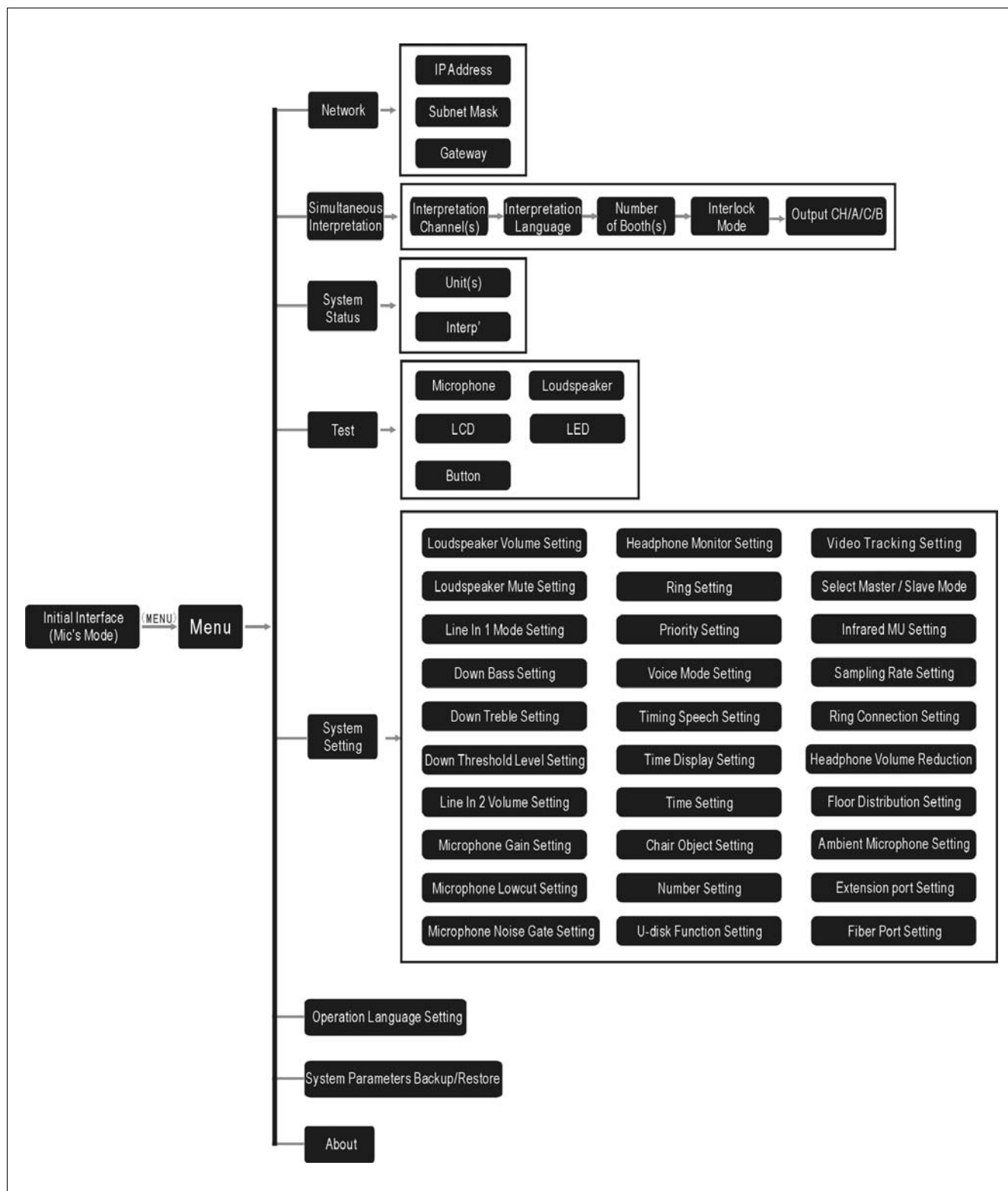
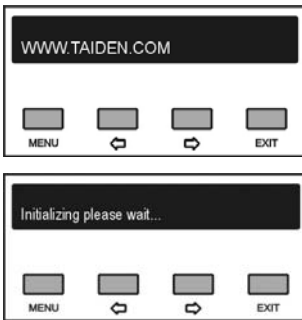


Figure 2.9 LCD menu structure of the congress main unit

A) Starting initialization

Switch on and press "STANDBY" button, HCS-4100M/50 CMU will start initialization:



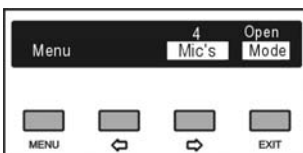
B) Initial interface on LCD

When the initialization is finished, the initial interface will be displayed on the LCD:

"Menu"

"Mic's"

"Mode"



Select and press the corresponding button below the item and go to the next operation:

- ◆ Press "Menu" button to return to the main menu;
- ◆ Press "⇒" button to select the maximal number of microphones that can be turned on at the same time: 1, 2, 3 or 4;
- ◆ Press "EXIT" button to select the microphone mode "OPEN", "OVERRIDE", "VOICE", "APPLY" or "PTT".

"Open":

If the maximal number of active microphones, previously fixed, has been reached, delegates requesting to speak join a request-to-speak list with a capacity of 6. The first unit joining the list will become active when the first active unit gets off.

"Override":

If the maximal number of active microphones has been reached and if another delegate unit is activated, the delegate unit switched on first will be switched off first automatically (first in / first out). The microphone limit set remains unchanged.

"Voice":

The delegates' microphone is activated when spoken into. After 1~15 seconds (adjustable) without speaking, the microphone switches off automatically.

"Apply":

When the delegate presses his/her microphone ON/OFF button to request to speak, the chairman unit can approve or reject his/her request.

"PTT" (push-to-talk):

When the delegate presses and holds the microphone ON/OFF button, the microphone will be activated; when the ON/OFF button is released, the microphone will be deactivated.

C) Access main menu

Pressing "Menu" button under initial user interface will go to the main menu, which includes eight menu items:

"Network"

"Simultaneous Interpretation"

"System Status"

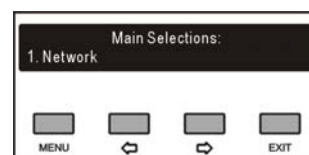
"Test"

"System Setting"

"Operation Language Setting"

"System Parameters Backup/Restore"

"About"



The current chosen term (e.g. "Network") is highlighted.

- ◆ Press "MENU" button to go to the corresponding submenu;
- ◆ Use "⇐/⇒" button to switch from term to term;
- ◆ Use "EXIT" button to exit current menu and return to the upper level menu.

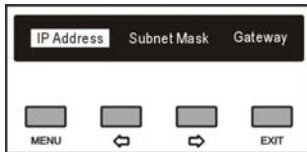
2.4.1 Network

"Network" includes three submenus:

"IP Address"

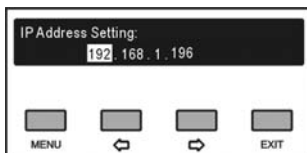
"Subnet Mask"

"Gateway"



a). Setting up unique "IP Address" for the transmitter:

- 1). Select "IP address" and press "Menu" button to go to setup IP address interface:



- 2). Use "←/→" button to switch between the four numbers;
- 3). Use "MENU" button to edit selected number;
- 4). Use "←/→" button to decrease/increase the number. To change the number quickly (= auto repeat) press and hold "←/→" button for a longer time
- 5). Use "EXIT" to return to high level menu.

b). Setup "Subnet Mask" and "Gateway"

Same chronological order as for "IP address" set up.

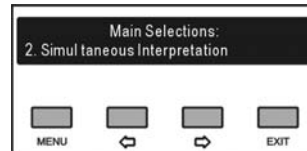
Note:

- ☞ When controlled by PC software, "Subnet Mask" and "Gateway" should be setup according to the PC configuration; otherwise it may cause a connection problem.
- ☞ In menu operation, except for "Network", "Timing speech" and "CobraNet port", all other menu changes should be saved via pressing "MENU" button, pressing "EXIT" button will ignore the changes.

2.4.2 Simultaneous interpretation

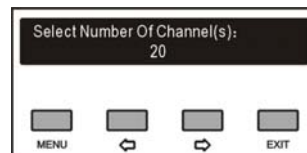
In "Simultaneous Interpretation" submenu, the following parameters need to be setup:

- ◆ "Select Number of Channel(s):"
- ◆ "Select Language For Channel:"
- ◆ "Select Number of Booth(s):"
- ◆ "Select Interlock Between Booths"
- ◆ "Select Language For Booth:"



Operation steps:

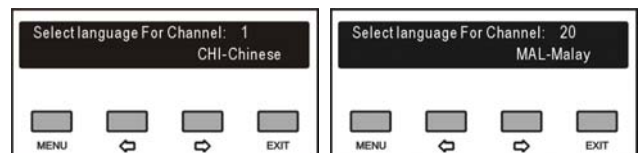
a). Setup the number of interpretation channels



Use "←/→" button to switch between 0~63;

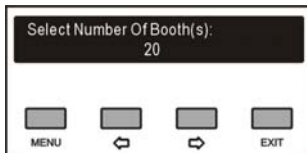
- If "0" is selected, it stands for no SI function, use "Menu" button to save and return to main menu;
- If other values are selected, it stands for the number of interpretation channels, use "Menu" button to go to step b).

b). Setup interpretation language



- 1). Setup channel 1 first, use "←/→" button to switch between languages;
- 2). Use "MENU" button to confirm selected language and go to next channel;
- 3). Repeat 1) ~ 2) to setup language for all channels, and go to step c);

c). Select number of booths



Use “←/→” button to switch between 0~63. Usually, one language will take one booth.

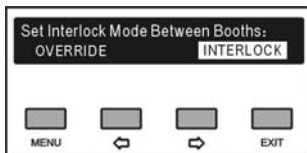
- If “0” is selected, it stands for no SI function, use “Menu” button to save and return to main menu;
- If other values are selected, it stands for the number of interpretation booths, use “Menu” button to go to step d).

d). Select interlock mode between booths

Select interlock mode between booths, includes:

"OVERRIDE"

"INTERLOCK"



- 1). Use “←/→” button to switch between two interlock modes;
 - “OVERRIDE” mode enables an interpreter in another booth to override an occupied channel in another booth, but supplying the same channel.
 - “INTERLOCK” mode prevents that two booths engage the same channel.
- 2). Use “MENU” button to confirm selected interlock mode and go to step e).

e). Select language for booth

To distribute interpretation languages separately, A/B/C channels are provided in each interpretation unit. The language setting of A/B/C channels for all interpretation units in one booth is uniform. After setup of booth numbers, the user interface to setup output channel A/B/C language will show for each booth.

General procedure:

1st step: select a language for channel A

2nd step: select ALL or NONE for channel C

If ALL is selected for C then

3rd step: select a language for B. Three channels are now available: A and B output a selected language and C outputs any available language.

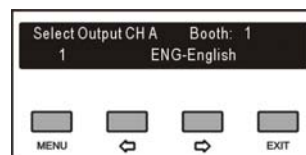
If NONE is selected for C then

4th step: select B: NONE or ALL

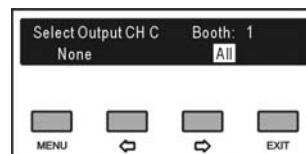
If NONE is selected for B only A outputs the selected language of step 1. B and C do not output languages

If ALL is selected for B then 2 output channels are available: A outputs the selected language of step 1 and B outputs any available language. No language output at C

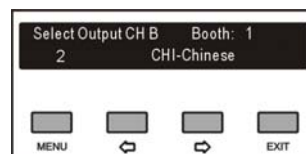
- 1). Setup channel A language for booth 1: press “←/→” button to select language from those languages that have been selected in step b) and press “MENU” button to confirm;



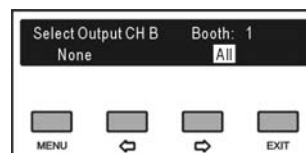
- 2). Select channel C language for booth 1: “NONE” or “ALL”;



- 3). If ALL is selected for C then press “←/→” button to select language for B from those languages that have been selected in step b) and press “MENU” button to confirm;



- 4). If NONE is selected for C then select channel B language from “NONE” or “ALL”;



- **“NONE”** stands for no language output from channel B;
- **“ALL”** stands for the language of channel B which can be any of the selected languages.

Press “MENU” button to confirm and go to configuration for next booth;

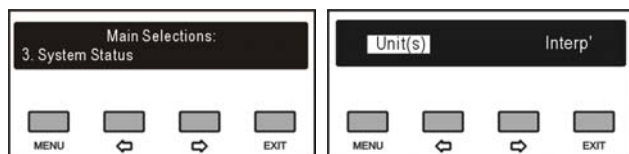
- 5). Repeat 1) ~ 2) to setup output channel A/B/C language for all booths and return to main menu.

2.4.3 System status

“System status” submenu includes:

“Unit status”

“Interpretation status”



■ "Unit status"

When entering this submenu, a table consisting of the total number, active number, and request-to-speak number of microphones is shown as in the following figure.

Unit Status	Total	Active	Apply
88	3	3	

■ "Interpretation status"

Monitors the language channels and their states. Only 8 language channels' status can be displayed in one full screen. All channels can be run through by “↔” button.

The “F” stands for the original floor language. An “F” is displayed if a channel hasn't been allocated to an interpretation booth or if it has not been fed with language output temporarily. If the microphone of the interpretation unit in the booth is active, the “+” will replace the “F” at the associated language channel, however, if all microphones in the booth are switched off, the “+” will return to the “F” again.

1 F	2 F	3 F	4 F	5 F	6 F	7 F	8 F
CHI	FIN	GER	FR	ENG	KOR	RUS	TUR

2.4.4 Test (cannot work under “VOICE” and “PTT” mode)

“Testing” submenu includes:

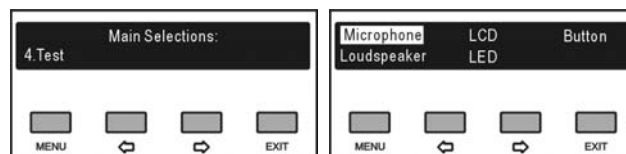
“Microphone”

“LCD”

“Button”

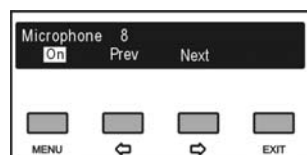
“Loudspeaker”

“LED”



1. "Microphone"

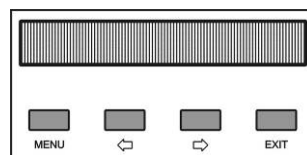
Testing microphones before the meeting. This interface is inaccessible if no discussion unit is connected.



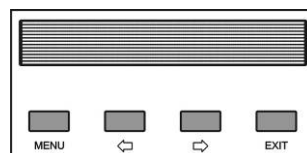
- “↔” button is used to run through all connected contribution units;
- “MENU” button is used to switch the unit ON/OFF to check if it can be turned ON/OFF normally or not;
- After finishing the run, quit the interface by pressing “↔” or “EXIT” button.

2. "LCD"

- Press “↔” button to select “LCD” and press “MENU” button to enter LCD test interface. Column scan will be executed immediately to scan the first column, shown as in the following figure:



- When the first time column scan is finished, press any button to start the second time column scan;
- When the second time column scan is finished, press any button to start the first time line scan, shown as in the following figure;



- d). When the first time line scan is finished, press any button to start the second time line scan;
- e). When the second time line scan is finished, press any button to start the full screen scan;
- f). When the full screen scan is finished, press any button to return to the upper menu.

3. "Key"

Testing buttons before meeting, especially when voting function is present.

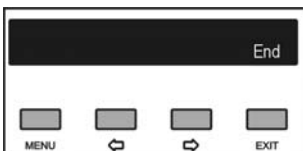
- a). Press " $\leftarrow/\rightarrow$ " button to select "Button" and press "MENU" button to enter button test interface. All connected contribution units will go to button test status;
- b). The button LEDs of all contribution units will blink and all the contribution units with LCD will prompt a hint, press all buttons in turn and test them;



- c). When all keys are tested, the LCD on contribution unit will display keys test result, as the following figure:

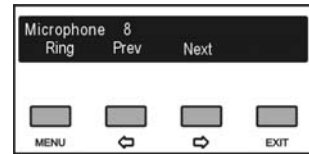


- d). When all keys test is finished, press "EXIT" button to return to upper menu.



4. "Loudspeaker"

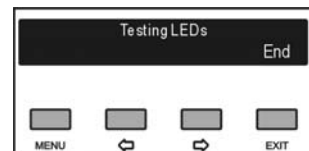
Press " $\leftarrow/\rightarrow$ " button to select "Loudspeaker" and press "MENU" button to enter loudspeaker test interface. If no discussion unit is connected, this interface is inaccessible.



- a). Press " $\leftarrow/\rightarrow$ " button to run through all connected contribution units;
- b). Press "MENU" button to turn on the loudspeaker of the current unit and check if it works normally or not;
- c). When the loudspeaker of every contribution unit has been tested, press " $\rightarrow$ " or "EXIT" button to exit loudspeaker test interface.

5. "LED"

Press " $\leftarrow/\rightarrow$ " button to select "LED" and press "MENU" button to enter LED test interface, shown as the following figure. The LEDs on all connected contribution units will blink immediately.

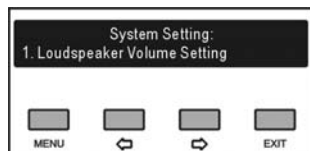


Press "EXIT" button to exit LED test interface.

2.4.5 System setting

"Setting" submenu includes:

1. Loudspeaker Volume	2. Loudspeaker Mute
3. Line in 1 Mode	4. Down Bass Setting
5. Down Treble Setting	6. Down Threshold Level
7. Line in 2 Volume	8. Mic Gain Setting
9. Microphone Lowcut	10. Microphone Noise Gate
11. Headphone Monitor Setting	12. Ring Setting
13. Priority Setting	14. Voice Mode Setting
15. Timing Speech	16. Time Display
17. Setting Time	18. Chair Object Setting
19. Number	20. U-disk Function
21. Video Tracking	22. Select Master/Slave Mode
23. Infrared MU	24. Sampling Rate
25. Ring Connection	26. Headphone Volume Reduction
27. Floor Distribution	28. Ambient Microphone Setting
29. Extension Port Setting	30. Fiber Port Setting



1. "Loudspeaker Volume Setting"

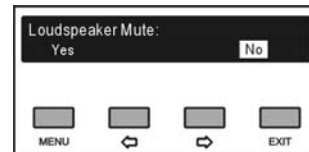
Adjust built-in loudspeaker volume of contribution units (except interpretation units), range: -30 dB ~ 0 dB.



- Press " $\leftarrow/\rightarrow$ " button to adjust volume;
- Press "MENU" button to save and return to upper level menu.

2. "Loudspeaker Mute Setting"

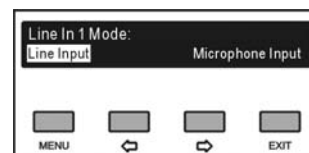
Mute/Not mute loudspeaker of contribution units (except interpretation units).



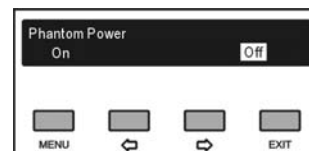
- Press " $\leftarrow/\rightarrow$ " button to select mute or not;
- Press "MENU" button to save and return to upper level menu.

3. "LINE IN 1 Mode Setting"

Select LINE IN 1 mode from "Line input" or "Microphone Input".



- Press " $\leftarrow/\rightarrow$ " button to select "Line input" or "Microphone Input";
- Select "Line input" and press "MENU" button to save and return to upper level menu;
 - Select "Microphone Input" and press "MENU" button will go to step b);



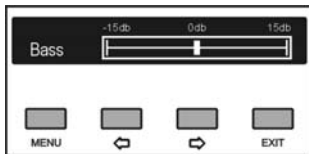
- Press " $\leftarrow/\rightarrow$ " button to select phantom power on/off, phantom power is used for connecting condenser microphone;
- Press "MENU" button to save and return to upper level menu.

Note:

"down" and "downlink" used in 4. /5. and 6. indicate the signal transmission direction from the central main unit to the contribution units.

4. "Down Bass Setting"

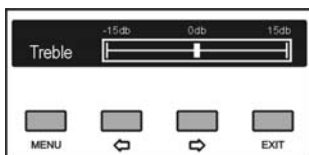
Adjust downlink bass of contribution units (except interpretation units), range: -15dB ~ +15 dB.



- Press " $\leftarrow/\rightarrow$ " button to adjust;
- Press "MENU" button to save and return to upper level menu.

5. "Down Treble Setting"

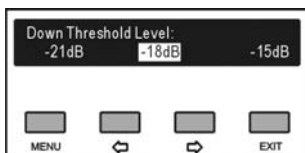
Adjust downlink treble of contribution units (except interpretation units), range: -15dB ~ +15 dB.



- Press " $\leftarrow/\rightarrow$ " button to adjust;
- Press "MENU" button to save and return to upper level menu.

6. "Down Threshold Level Setting"

Setup downlink audio threshold level to make sure that the sound issuing from the built-in loudspeaker and the headphone of each congress unit has no distortion.



- Press " $\leftarrow/\rightarrow$ " button to select threshold level between -21dB, -18dB and -15dB;
- Press "MENU" button to save and return to upper level menu.

7. "LINE IN 2 Volume Setting"

Adjust LINE IN 2 input volume, range: mute, -30 dB ~ 0 dB.



- Press " $\leftarrow/\rightarrow$ " button to adjust volume;
- Press "MENU" button to save and return to upper level menu.

8. "Microphone Gain Setting"

"Microphone gain setting" includes two submenus:

"Set All Mics"

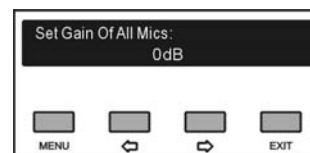
"Set Active"



1st step: power on all units

2nd step: switch on any microphone (only one at a time) as the first one and make a voice test. Keep the acoustic impression in mind. Switch off the mic and switch on the next mic and make the voice test again. Continue until the last mic has been tested. If your final impression is that the sound level is not appropriate, increase or decrease the gain in "Set All Mics" in the CMU. Otherwise keep it unchanged.

♦ "Set All Mics"



- Press " $\leftarrow/\rightarrow$ " button to adjust the gain of all microphones (press and hold " $\leftarrow/\rightarrow$ " button will adjust numeric value quickly), range: -15 dB ~ 15 dB;
- Press "MENU" button to save and return to upper level menu.

3rd step:

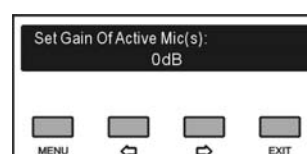
Now redo the test again as "Set All Mics" setting from step 2 does. Switch on any mic as the first and check the sound result again.

If it is ok, then switch off the mic and switch on the next mic.

If it is not ok then keep the mic switched on and got to "Set Active" setting in the CMU and increase or decrease the mic gain.

Continue with the next mic.

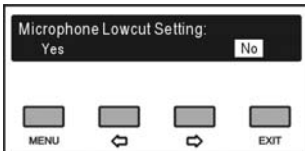
♦ "Set Active"



- c). Press " $\leftrightarrow$ " button to adjust the gain of all microphones (press and hold " $\leftrightarrow$ " button will adjust numeric value quickly), range: -15 dB ~ 15 dB;
- d). Press "MENU" button to save and return to upper level menu.

9. "Microphone Lowcut Setting"

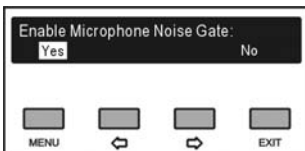
Select Yes or No for activating Lowcut filter for microphone audio.



- a). Press " $\leftrightarrow$ " button to activate (Yes) or not activate (No) Lowcut filter for microphone audio;
- b). Press "MENU" button to save and return to upper level menu.

10. "Microphone Noise Gate Setting"

Select activation of microphone noise gate or not. If activated, system will mute automatically when the signal level is continuously lower than a certain threshold.



- a). Press " $\leftrightarrow$ " button to select activation of microphone noise gate or not;
- b). Press "MENU" button to save and return to upper level menu.

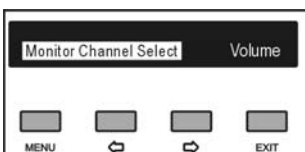
11. "Headphone Monitor Setting"

The audio output can be monitored with a headphone at the monitor jack on the front panel of the CMU.

"Headphone monitor setting" includes two submenus:

"Monitor Channel Select"

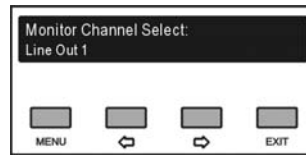
"Volume"



- a). Press " $\leftrightarrow$ " button to select "Monitor Channel Select" or "Volume";
- b). Press "MENU" button to go to next step;

■ "Monitor Channel Select"

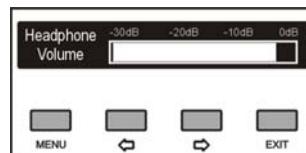
Monitor Channel Select includes: group output 1~6, line output 1~2 (HCS-4100M/50 series CMU has no group output function).



- a). Press " $\leftrightarrow$ " button to select monitor channel;
- b). Press "MENU" button to save and return to upper level menu.

■ "Volume"

Adjust monitoring headphone volume, range: -30 dB ~ 0 dB.



- a). Press " $\leftrightarrow$ " button to adjust the volume (press and hold " $\leftrightarrow$ " button will adjust numeric value quickly);
- b). Press "MENU" button to save and return to upper level menu.

12. "Ring Setting"

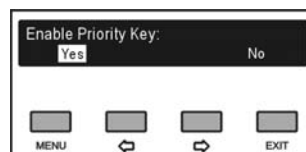
Select ring tone on/off when request to speak, chairman priority button pressed, speech timing or request to intercom.



- a). Press " $\leftrightarrow$ " button to select ring on/off;
- b). Press "MENU" button to save and return to upper level menu.

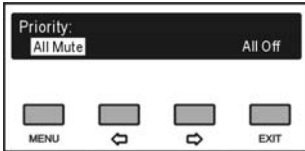
13. "Priority Setting"

Select enable/disable chairman priority button.



- a). Press " $\leftrightarrow$ " button to select enable/disable chairman priority button;
 - If 'No' is selected, press "MENU" button to confirm and return to upper level menu;

- If **"Yes"** is selected, press **"MENU"** button to confirm and go to step b);



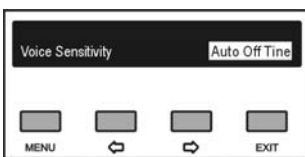
- b). Press **"↔"** button to select priority mode between **"All Mute"** and **"All Off"**;
- **"All Mute"**: when chairman presses and holds **"Priority"** button, all active microphones will mute temporarily; when chairman releases **"Priority"** button, all temporarily muted microphones will resume.
 - **"All Off"**: when chairman presses **"Priority"** button, all active microphones will be deactivated (except VIP units).
- c). Press **"MENU"** button to save and return to upper level menu.

14. "Voice Mode Setting"

"Voice Mode Setting" includes two submenus:

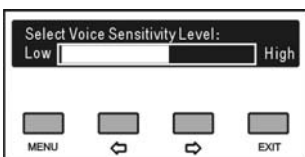
"Voice Sensitivity"

"Auto Off Time"



■ "Sensitivity"

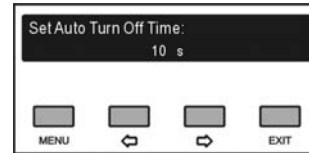
Set microphone sensitivity under voice mode. Higher sensitivity means a lower voice can activate the microphone.



- a). Press **"↔"** button to set microphone sensitivity;
- b). Press **"MENU"** button to save and return to upper level menu.

■ "Auto Off Time"

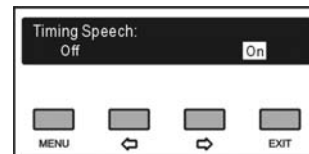
If the speaker does not speak for a certain time under **"Voice"** mode, the microphone will be deactivated automatically.



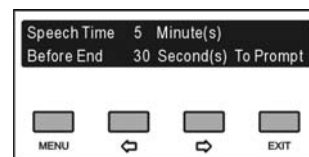
- a). Press **"↔"** button to set auto turn off time (press and hold **"↔"** button will adjust numeric value quickly); range: 1s ~ 15 s.
- b). Press **"MENU"** button to save and return to upper level menu.

15. "Set timing speech"

Set timing speech, range: 1~240 minutes.



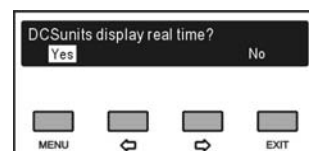
- a). Press **"↔"** button to set timing speech on/off:
- If **"Off"** is selected, press **"MENU"** button to confirm and return to upper level menu;
 - If **"On"** is selected, press **"MENU"** button to confirm and go to step b);
- b). Press **"↔"** button to switch between **"Speech time"** and **"Prompt time"**;



- c). Press **"MENU"** to select **"Speech time ... (minutes)"** or **"Before ... (s) to prompt"**
- d). Press **"↔"** button to set time (press and hold **"↔"** button will adjust numeric value quickly);
- e). Press **"EXIT"** button to save and return to upper level menu.

16. "Time Display Setting"

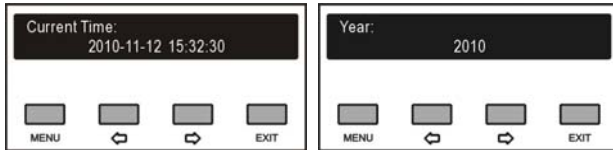
Display or do not display time on the LCDs of the contribution units.



- a). Press **"↔"** button to select **"Yes"** or **"No"**;
- b). Press **"MENU"** button to save and return to upper level menu.

17. "Time Setting"

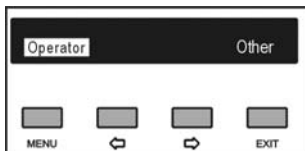
Set system clock.



- Press "MENU" button to go to "Year", "Month", "Day", "Hour", "Minute" in turn;
- Press " $\leftarrow/\rightarrow$ " button to set time (press and hold " $\leftarrow/\rightarrow$ " button will adjust numeric value quickly);
- Press "MENU" button to save and return to upper level menu.

18. "Chair Object Setting"

Assigning the operator unit or a chairman/delegate unit with a LCD as the congress host. When an interpreter presses the "CHAIR" button on his/her interpretation unit, he/she sets up intercom with the assigned congress host.



♦ "Operator"

- Press " $\leftarrow/\rightarrow$ " button to select "Operator", then the operator was assigned as the congress host;
- Press "MENU" button to save and return to upper level menu.

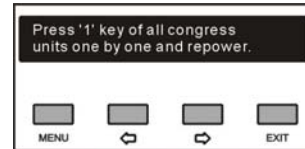
♦ "Other"



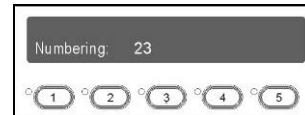
- Press " $\leftarrow/\rightarrow$ " button to select "Other", and to assign any chairman/delegate unit with LCD as the congress host;
- According to the hint on the LCD of the chairman/delegate unit, press "1" button on this unit, to assign it as the congress host;
- Press "MENU" button to save and return to upper level menu.

19. "Number"

- Enter "Number" submenu, the LCD on the CMU will display "Press '1' button of congress units one by one and repower".



At this instant, all contribution units with a LCD will prompt the number on their LCD; contribution units without a LCD will activate the corresponding LED.



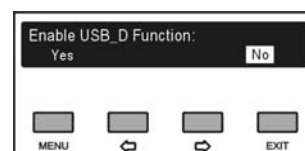
- Press "1" button on all contribution units one by one to number them;
- When all contribution units are numbered, restart the CMU to update the number.

Note:

- To update the number the CMU must be restarted after the numbering;
- HCS-4100/50 has an auto-numbering function. "Number" function is used to allocate an ID to each contribution unit manually. This is used for some applications which need to know the exact ID of each contribution unit, for example controlling the contribution units by the wireless touch panel of the central control system.

20. "U-disk Function Setting"

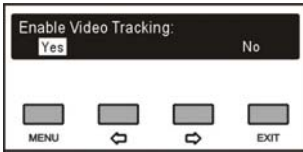
Enable/disable USD_D interface on the front panel of the CMU. If enabled, the CMU can be connected to the PC via the USB_D interface to backup/restore CMU information.



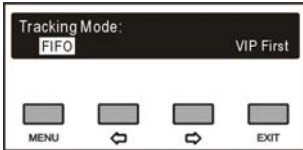
- Press " $\leftarrow/\rightarrow$ " button to select "Yes" or "No";
- Press "MENU" button to save and return to upper level menu.

21. "Video Tracking Setting"

Enable/disable video tracking function.



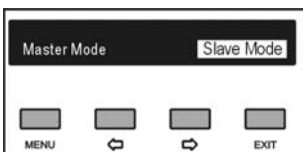
- a). Press "<=>" button to select "Yes" or "No";
- If **"No"** is selected, press "MENU" button to confirm and return to upper level menu.
 - If **"Yes"** is selected, press "MENU" button to go to step b);



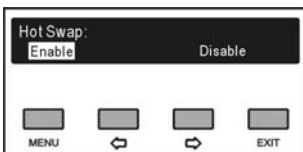
- b). Press "<=>" button to select "FIFO" or "VIP First";
- **"FIFO"** is selected: when current video tracking microphone is deactivated, video camera will turn to last active microphone automatically;
 - **"VIP First"** is selected: when current video tracking microphone is deactivated, video camera will turn to chairman unit. If no chairman unit is present, it will turn to VIP unit.
- c). Press "MENU" button to save and return to upper level menu.

22. "Select Master/Slave Mode"

If two CMU are installed in one system, they are set as "Master Mode" and "Slave Mode" separately.

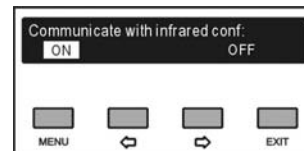


- a). Press "<=>" button to select "Master" or "Slave":
- If **"Master Mode"** is selected, press "MENU" button to confirm and return to upper level menu;
 - If **"Slave Mode"** is selected, press "MENU" button to confirm and go to step b);

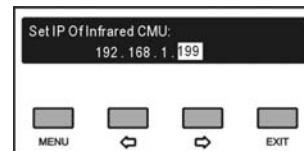


- b). Press "<=>" button to select "Enable" or "Disable";
- If **"Enable"** is selected, slave CMU will backup master CMU automatically during the meeting process. If master CMU stops, slave CMU will switch automatically to master mode and act as master CMU;
 - If **"Disable"** is selected, slave CMU will backup master CMU automatically in the meeting process. If master CMU stops, slave CMU will NOT switch to master mode;
- c). Press "MENU" button to save and return to upper level menu.

23. "Infrared MU Setting"

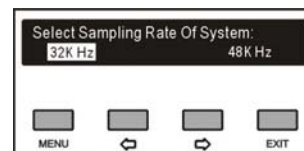


- a). Press "<=>" button to select "On" or "Off";
- If **"Off"** is selected, press "MENU" to save and return to upper level menu;
 - If **"On"** is selected, press "MENU" button to go to step b);
- b). Setup infrared MU IP address, the same as 2.4.1.



24. "Sampling Rate Setting"

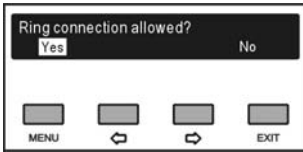
Select sample rate between 32 kHz and 48 kHz. If "48 kHz" sampling frequency is selected, the system response frequency is 30 Hz ~ 20 kHz; if "32 kHz" sampling frequency is selected, the system response frequency is 30 Hz ~ 16k Hz.



- a). Press "<=>" button to select "32 kHz" or "48 kHz";
- b). Press "MENU" to save and return to upper level menu.

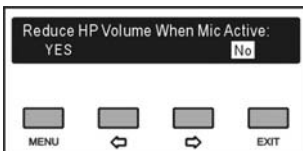
25. "Ring Connection Setting"

Enable/disable ring connection.



- a). Press " $\leftarrow/\rightarrow$ " button to select "Yes" or "No";
 - If "Yes" is selected, all contribution units can be "daisy-chained" into a ring connection topology;
 - If "No" is selected, all contribution units can only be "daisy-chained";
- b). Press "MENU" to save and return to upper level menu.

26. "Headphone Volume Reduction"

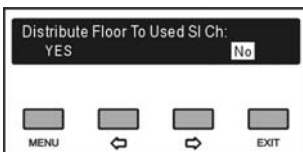


If a headphone is plugged howling may happen when the microphone is activated. "Headphone volume reduction" function is used to suppress howling. If enabled, the headphone audio signal will decrease automatically by 18 dB.

- a). Press " $\leftarrow/\rightarrow$ " button to select "Yes" or "No";
- b). Press "MENU" to save and return to upper level menu.

27. "Floor Distribution Setting"

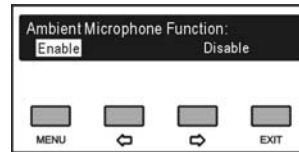
Enable/disable switch to floor channel automatically when no interpretation channel is available.



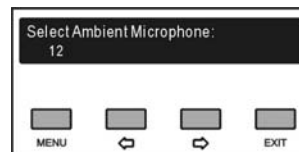
- a). Press " $\leftarrow/\rightarrow$ " button to select "Yes" or "No";
- b). Press "MENU" to save and return to upper level menu.

28. Ambient Microphone Setting (HCS-4100MC/50 does not have this function)

Enable/disable ambient microphone.



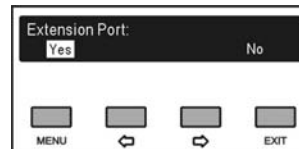
- a). Press " $\leftarrow/\rightarrow$ " (left/right) button to select enable/disable.
 - If "Disable" is selected, press "MENU" button to disable ambient microphone;
 - If "Enable" is selected, press "MENU" button to confirm and go to step b);



- b). Press " $\leftarrow/\rightarrow$ " (left/right) button to select a microphone ID;
- c). Press "MENU" button to save and return to upper level menu.

29. "Extension Port Setting"

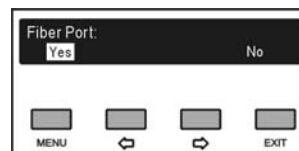
Enable/disable extension port on the backside of the CMU.



- a). Press " $\leftarrow/\rightarrow$ " button to select "Yes" or "No";
- b). Press "MENU" button to save and return to upper level menu.

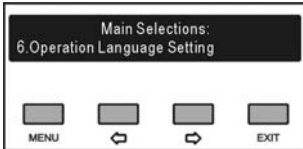
30. "Fiber Port Setting"

Enable/disable fiber port on the backside of the CMU.



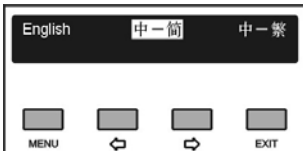
- a). Press " $\leftarrow/\rightarrow$ " button to select "Yes" or "No";
- b). Press "MENU" button to save and return to upper level menu.

2.4.6 Operation language setting



Select LCD display language from simplified Chinese, Traditional Chinese and English. Other languages can be added by the user through software operation (refer to software operation instruction for details).

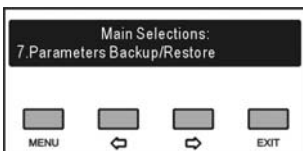
Select language:



- Press " $\leftarrow/\rightarrow$ " button to select LCD display language;
- Press "MENU" button to save and return to upper level menu.

2.4.7 System parameter backup/restore

If USB feature is enabled, system parameters can be backed up or restored through the front panel USB port. Make sure that the USB disk is properly connected; otherwise it will prompt "Please insert the USB disk."



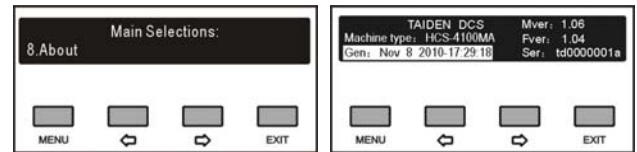
- Press " $\leftarrow/\rightarrow$ " button to select "Backup" or "Restore";
 - If "Backup" is selected, system parameters can be backed up;
 - If "Restore" is selected, system parameters can be restored;



- Press "MENU" button to confirm and to go to selected menu item;
- Return to upper level menu after backup or recovery.

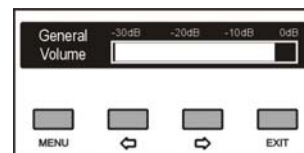
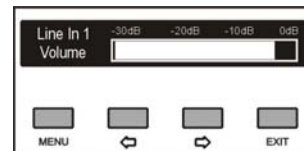
2.4.8 About

CMU information includes: firmware version, corporation information and series number, shown as in the following figure - press any button to return to upper level menu.



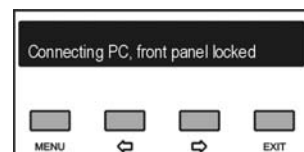
2.4.9 Volume control

Volume can be adjusted by volume knob on the CMU front panel - LINE IN 1 VOL. adjust knob and MASTER VOLUME adjust knob. Meanwhile, the corresponding volume indicator will be displayed on the LCD, as shown in the following figure:



2.4.10 Connecting to PC

When connecting the CMU to the PC, its front panel will be locked and setup operation cannot be accessed, as shown as the following figure:



Chapter 3 Congress units

3.1 Overview

Congress unit is the common name to describe the units used by the attendees to contribute to a congress. The term includes *discussion unit (chairman/delegate), voting unit, channel selector* etc. Various features are available for the attendee, depending on the type of congress unit operated: listen, speak, request to speak, information display, IC card sign-in, key-press sign-in, voting, simultaneous interpretation etc.

3.1.1 Discussion unit

A *discussion unit* provides speaking function. Microphone and loudspeaker are the basic components.

A discussion unit includes chairman unit, delegate unit, VIP unit and operator unit for the technical operator of the venue.

Discussion units are available as foldaway, tabletop, flush-mounted, depending on the method of installation and the appearance wanted by the user. This choice greatly enriches the diversification requirements by all kinds of users.

Product type:

G-series: tabletop/ flush-mounted discussion units

HCS-4886C/50 chairman unit

discussion - 5 voting keys - IC card sign-in - 64CHs simultaneous interpretation - 256x32 LCD

HCS-4886D/50 delegate unit

discussion - 5 voting keys - IC card sign-in - 64CHs simultaneous interpretation - 256x32 LCD

HCS-4887D/50 delegate unit

discussion - 5 voting keys - IC card sign-in - 256 x 32 LCD

HCS-4888D/50 delegate unit

discussion - 5 voting keys - Chinese panel

HCS-4888DE/50 delegate unit

discussion - 5 voting keys - English panel

HCS-4886X_S/50 operator unit

for intercom function - tulip gold panel + grey base

Note: At choice for all discussion units of this series (except operation unit): tulip gold panel + grey base or tulip gold panel + black base.

E-series: tabletop/ flush-mounted foldaway discussion units

HCS-4380SC/50 chairman unit

discussion - 5 voting keys - IC card sign-in - 64CHs simultaneous interpretation - 256x32 LCD

HCS-4380SD/50 delegate unit

discussion - 5 voting keys - IC card sign-in - 64CHs simultaneous interpretation - 256x32 LCD

HCS-4380SX/50 operator unit

for intercom function

HCS-4382SD/50 delegate unit

discussion - 5 voting keys - 256x32 LCD

HCS-4370SD/50 delegate unit

discussion - 5 voting keys - IC card sign-in - 64CHs simultaneous interpretation - Chinese panel

HCS-4370SDE/50 delegate unit

discussion - 5 voting keys - IC card sign-in - 64CHs simultaneous interpretation - English panel

HCS-4371SD/50 delegate unit

discussion only

Note: HCS-4380SC/50 is the chairman unit for all discussion units of this series.

Q-series: flush-mounted discussion units with protective cover

HCS-4365C/50 chairman unit

Discussion - 5 voting keys - IC card sign-in - 64CHs simultaneous interpretation - 256x32 LCD

HCS-4365D/50 delegate unit

discussion - 5 voting keys - IC card sign-in - 64CHs simultaneous interpretation - 256x32 LCD

HCS-4366D/50 delegate unit

discussion - 5 voting keys - IC card sign-in - 64CHs simultaneous interpretation - Chinese panel

HCS-4366DE/50 delegate unit

discussion - 5 voting keys - IC card sign-in - 64CHs simultaneous interpretation - English panel

M-series: flush-mounted discussion units with protective cover

HCS-4360C/50 chairman unit

discussion - 5 voting keys - IC card sign-in - 64CHs simultaneous interpretation - Chinese panel

HCS-4360CE/50 chairman unit

discussion - 5 voting keys - IC card sign-in - 64CHs simultaneous interpretation - English panel

HCS-4360D/50 delegate unit

discussion - 5 voting keys - IC card sign-in - 64CHs simultaneous interpretation - Chinese panel

HCS-4360DE/50 delegate unit

discussion - 5 voting keys - IC card sign-in - 64CHs simultaneous interpretation - English panel

HCS-4361D/50 delegate unit

discussion - 5 voting keys - Chinese panel

HCS-4361DE/50 delegate unit

discussion - 5 voting keys - English panel

HCS-4362D/50 delegate unit

discussion - 64CHs simultaneous interpretation

HCS-4363D/50 delegate unit

discussion only

D-series: tabletop discussion units

HCS-4330C/50 chairman unit

discussion - 5 voting keys - IC card sign-in - 64CHs simultaneous interpretation - Chinese panel

HCS-4330CE/50 chairman unit

discussion - 5 voting keys - IC card sign-in - 64CHs simultaneous interpretation - English panel

HCS-4330D/50 delegate unit

discussion - 5 voting keys - IC card sign-in - 64CHs simultaneous interpretation - Chinese panel

HCS-4330DE/50 delegate unit

discussion - 5 voting keys - IC card sign-in - 64CHs simultaneous interpretation - English panel

HCS-4331CB/50 chairman unit

discussion - 64CHs simultaneous interpretation - speaking timer display

HCS-4331DB/50 delegate unit

discussion - 64CHs simultaneous interpretation - speaking timer display

HCS-4332D/50 delegate unit

discussion - 5 voting keys - Chinese panel

HCS-4332DE/50 delegate unit

discussion - 5 voting keys - English panel

HCS-4333CB/50 chairman unit

discussion - speaking timer display - request to speak display

HCS-4333DB/50 delegate unit

discussion - speaking timer display - request to speak display

HCS-4335D/50 delegate unit

discussion - 64CHs simultaneous interpretationx2 - 2 ID

Note: this series discussion unit has 2 colors available: gray and silver.

L-series: flush-mounted discussion units with protective cover

HCS-4320C/50 chairman unit

discussion - 5 voting keys - IC card sign-in - 64CHs simultaneous interpretation - stem microphone - Chinese panel

HCS-4320CE/50 chairman unit

discussion - 5 voting keys - IC card sign-in - 64CHs simultaneous interpretation – stem microphone - English panel

HCS-4320HC/50 chairman unit

discussion - 5 voting keys - IC card sign-in - 64CHs simultaneous interpretation - handheld microphone - Chinese panel

HCS-4320HCE/50 chairman unit

discussion - 5 voting keys - IC card sign-in - 64CHs simultaneous interpretation - handheld microphone - English panel

HCS-4320D/50 delegate unit

discussion - 5 voting keys - IC card sign-in - 64CHs simultaneous interpretation – stem microphone - Chinese panel

HCS-4320DE/50 delegate unit

discussion - 5 voting keys - IC card sign-in - 64CHs simultaneous interpretation – stem microphone - English panel

HCS-4320HD/50 delegate unit

discussion - 5 voting keys - IC card sign-in - 64CHs simultaneous interpretation - handheld microphone - Chinese panel

HCS-4320HDE/50 delegate unit

discussion - 5 voting keys - IC card sign-in - 64CHs simultaneous interpretation - handheld microphone - English panel

HCS-4321D/50 delegate unit

discussion - 5 voting keys - 64CHs simultaneous interpretation – stem microphone - Chinese panel

HCS-4321DE/50 delegate unit

discussion - 5 voting keys - 64CHs simultaneous interpretation – stem microphone - English panel

HCS-4321HD/50 delegate unit

discussion - 5 voting keys - 64CHs simultaneous interpretation - handheld microphone - Chinese panel

HCS-4321HDE/50 delegate unit

discussion - 5 voting keys - 64CHs simultaneous interpretation - handheld microphone - English panel

HCS-4322D/50 delegate unit

discussion - 64CHs simultaneous interpretation - stem microphone

HCS-4322HD/50 delegate unit

discussion - 64CHs simultaneous interpretation - handheld microphone

C-series: only operative with HCS-4340/50 multi-function connector

HCS-4341CA/50 flush-mounted chairman unit

discussion only - with stem microphone - gray

HCS-4341CA_S/50 flush-mounted chairman unit

discussion only - with stem microphone - silver

HCS-4341DA/50 flush-mounted delegate unit

discussion only - with stem microphone - gray

HCS-4341DA_S/50 flush-mounted delegate unit

discussion only - with stem microphone - silver

HCS-4341CB/50 boundary chairman unit

discussion only - black

HCS-4341DB/50 boundary delegate unit

discussion only - black

HCS-4341HD/50 flush-mounted delegate unit

discussion only - with handheld microphone - black

Note: this series chairman unit is only operative with HCS-4340CA/50 multi-function connector, delegate unit is only operative with HCS-4340DA/DT/50 multi-function connector, and the handheld delegate unit is only operative with HCS-4340HDA/50 multi-function connector.

N-series: only operative with HCS-4340/50 multi-function connector

HCS-4841NC/50 flush-mounted chairman unit

discussion only

HCS-4841ND/50 flush-mounted delegate unit

discussion only

HCS-4842N/50 flush-mounted channel selector

64CHs simultaneous interpretation - channel number display LCD

Note: this series discussion unit has 2 colors available: gray and silver; this series chairman unit is only operative with HCS-4340CA/50 multi-function connector, delegate unit is only operative with HCS-4340DA/DT/50 multi-function connector, and channel selector is only operative with HCS-4340/50 multi-function connector.



Figure 3.1 Discussion units

3.1.2 Wired voting unit

HCS-4100/50 system provides powerful voting management functions. A large choice of wired voting units considerably satisfies the requirements both for various types of voting and different scales.

Product type:

N series:

HCS-4843NCT/50 voting unit for chairman

flush-mounted - 3 voting keys - Chinese panel

HCS-4843NCTE/50 voting unit for chairman

flush-mounted - 3 voting keys - English panel

HCS-4843NDT/50 voting unit for delegate

flush-mounted - 3 voting keys - Chinese panel

HCS-4843NDTE/50 voting unit for delegate

flush-mounted - 3 voting keys - English panel

HCS-4843NCTK/50 voting unit for chairman

flush-mounted - 3 voting keys - IC card sign-in - Chinese panel

HCS-4843NCTKE/50 voting unit for chairman

flush-mounted - 3 voting keys - IC card sign-in - English panel

HCS-4843NDTK/50 voting unit for delegate

flush-mounted - 3 voting keys - IC card sign-in - Chinese panel

HCS-4843NDTKE/50 voting unit for delegate

flush-mounted - 3 voting keys - IC card sign-in - English panel

HCS-4843NCF/50 voting unit for chairman

flush-mounted - 5 voting keys - Chinese panel

HCS-4843NCFE/50 voting unit for chairman

flush-mounted - 5 voting keys - English panel

HCS-4843NDF/50 voting unit for delegate

flush-mounted - 5 voting keys - Chinese panel

HCS-4843NDFE/50 voting unit for delegate

flush-mounted - 5 voting keys - English panel

HCS-4843NCFK/50 voting unit for chairman

flush-mounted - 5 voting keys - IC card sign-in - Chinese panel

HCS-4843NCFKE/50 voting unit for chairman

flush-mounted - 5 voting keys - IC card sign-in - English panel

HCS-4843NDFK/50 voting unit for delegate

flush-mounted - 5 voting keys - IC card sign-in - Chinese panel

HCS-4843NDFKE/50 voting unit for delegate

flush-mounted - 5 voting keys - IC card sign-in - English panel

Note: the above of this series voting units are only operative with HCS-4340A/50 multi-function connector, and have 2 colors available: gray and silver.

HCS-4843DF_S/50 voting unit for delegate

flush-mounted - 5 voting keys - silver- Chinese panel -

HCS-4340A/50 multi-function connector not required

HCS-4843DFK_S/50 voting unit for delegate

flush-mounted - 5 voting keys - IC card sign-in - silver - Chinese panel - HCS-4340A/50 multi-function connector not required

HCS-4843DFE_S/50 voting unit for delegate

flush-mounted - 5 voting keys - silver- English panel - HCS-4340A/50 multi-function connector not required

HCS-4843DFKE_S/50 voting unit for delegate

flush-mounted - 5 voting keys - IC card sign-in - silver - English panel - HCS-4340A/50 multi-function connector not required

HCS-4368/50 series:

HCS-4368CT/50 tabletop voting unit for chairman

3 voting keys - 256x32 graphic LCD - waterproof - 12000V antistatic

HCS-4368DT/50 tabletop voting unit for delegate

3 voting keys - 256x32 graphic LCD - waterproof - 12000V antistatic

HCS-4368CT/FM/50 flush-mounted voting unit for chairman

3 voting keys - 256x32 graphic LCD - waterproof - 12000V antistatic - protective cover

HCS-4368DT/FM/50 flush-mounted voting unit for delegate

3 voting keys - 256x32 graphic LCD - waterproof - 12000V antistatic - protective cover

HCS-4368NCT/50 tabletop voting unit for chairman

3 voting keys - waterproof - 12000V antistatic - Chinese panel

HCS-4368NCTE/50 tabletop voting unit for chairman

3 voting keys - waterproof - 12000V antistatic - English panel

HCS-4368NDT/50 tabletop voting unit for delegate

3 voting keys - waterproof - 12000V antistatic - Chinese panel

HCS-4368NDTE/50 tabletop voting unit for delegate

3 voting keys - waterproof - 12000V antistatic - English panel

HCS-4368NCT/FM/50 flush-mounted voting unit for chairman

3 voting keys - waterproof - 12000V antistatic - protective cover - Chinese panel

HCS-4368NCTE/FM/50 flush-mounted voting unit for chairman

3 voting keys - waterproof - 12000V antistatic - protective cover - English panel

HCS-4368NDT/FM/50 flush-mounted voting unit for delegate

3 voting keys - waterproof - 12000V antistatic - protective cover - Chinese panel

HCS-4368NDTE/FM/50 flush-mounted voting unit for delegate

3 voting keys - waterproof - 12000V antistatic - protective cover - English panel

HCS-4368CF/50 tabletop voting unit for chairman

5 voting keys - 256x32 graphic LCD - waterproof

HCS-4368DF/50 tabletop voting unit for delegate

5 voting keys - 256x32 graphic LCD – waterproof

HCS-4368CFK/50 tabletop voting unit for chairman

5 voting keys - 256x32 LCD - IC card sign-in

HCS-4368DFK/50 tabletop voting unit for delegate

5 voting keys - 256x32 LCD - IC card sign-in

HCS-4368CF/FM/50 flush-mounted voting unit for chairman

5 voting keys - 256x32 graphic LCD - waterproof - protective cover

HCS-4368DF/FM/50 flush-mounted voting unit for delegate

5 voting keys - 256x32 graphic LCD - waterproof - protective cover

HCS-4368CFK/FM/50 flush-mounted voting unit for chairman

5 voting keys - 256x32 LCD - IC card sign-in - protective cover

HCS-4368DFK/FM/50 flush-mounted voting unit for delegate

5 voting keys - 256x32 LCD - IC card sign-in - protective cover

HCS-4368NCF/50 tabletop voting unit for chairman

5 voting keys - waterproof - Chinese panel

HCS-4368NCFE/50 tabletop voting unit for chairman

5 voting keys - waterproof - English panel

HCS-4368NDF/50 tabletop voting unit for delegate

5 voting keys – waterproof - Chinese panel

HCS-4368NDFE/50 tabletop voting unit for delegate

5 voting keys – waterproof - English panel

HCS-4368NCF/FM/50 flush-mounted voting unit for chairman

5 voting keys - waterproof - protective cover - Chinese panel

HCS-4368NCFE/FM/50 flush-mounted voting unit for chairman

5 voting keys - waterproof - protective cover - English panel

HCS-4368NDF/FM/50 flush-mounted voting unit for delegate

5 voting keys - waterproof - protective cover - Chinese panel

HCS-4368NDFE/FM/50 flush-mounted voting unit for delegate

5 voting keys - waterproof - protective cover - English panel

Note: this series tabletop voting units have only one color: red;

this series flush-mounted voting units have 2 colors available: gray and silver.



HCS-4843NCTKE/50



HCS-4843NDFKE/50

N-series wired voting units



HCS-4368CT_R/50



HCS-4368CT/FM_R/50



HCS-4368NDTE_R/50



HCS-4368NDTE/FM_R/50



HCS-4368DF_R/50



HCS-4368CFK_S/FM/50



HCS-4368NDFE_R/50



HCS-4368NDF/FM_R/50

HCS-4368/50 series wired voting units

Figure 3.2 Wired voting units

3.2 HCS-4886/87/88 (G-) series congress unit

3.2.1 Functions and indications

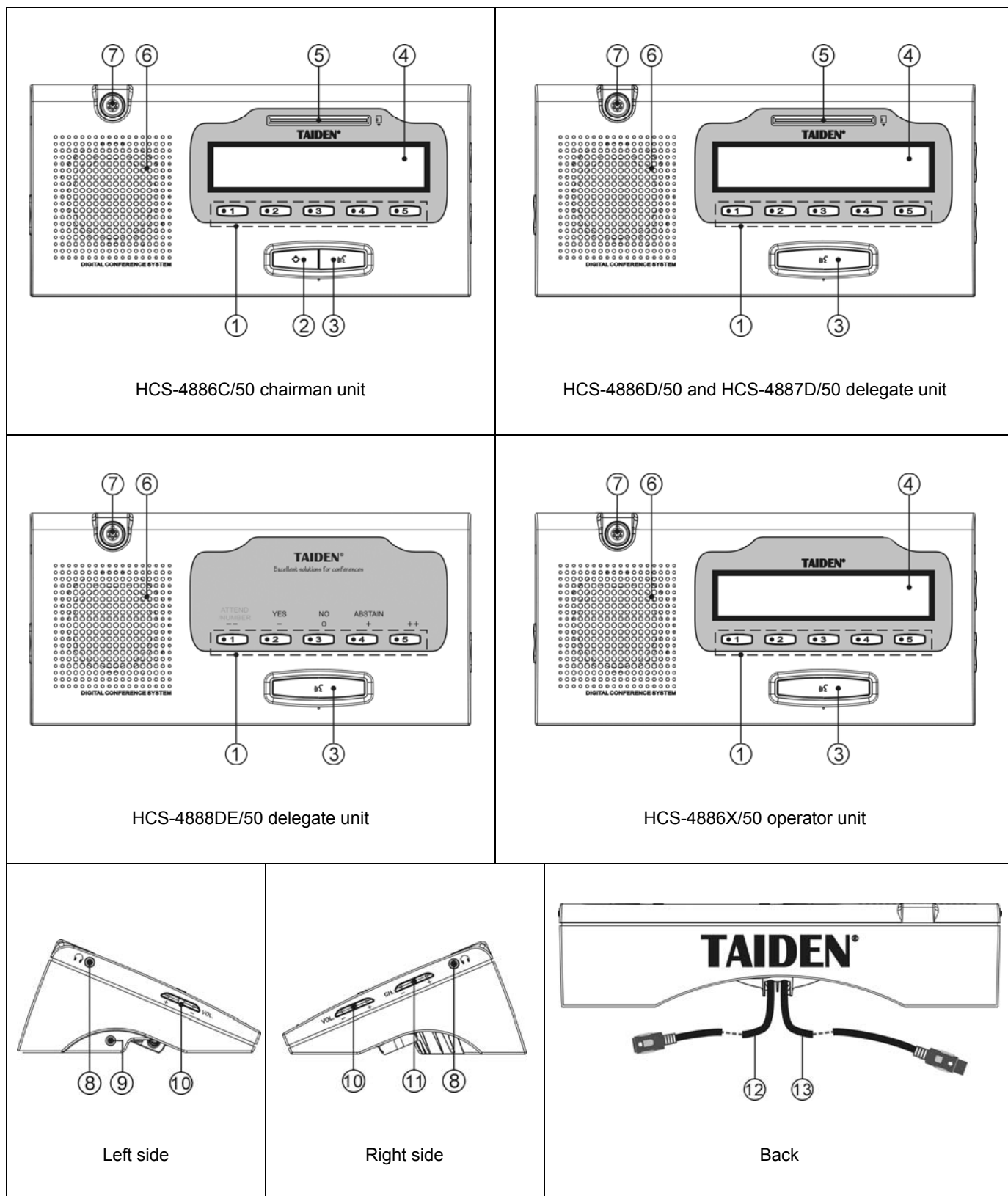


Figure 3.3 G-series discussion units

3.2.1.1 Front

1. Multi functional keys with indicating light (5 keys):

◆ Start/Stop/Sign-in/Number/Option1/Response-- Key ("ATTEND/NUMBER/1/--")

- In key-press sign-in mode, the sign-in indicating light will blink, press this key to sign-in;
- In voting mode (Multiple choice/Opinion poll), the voting indicating light will blink, press this key to vote for option 1;
- In voting mode (Audience response/Rating), the voting indicating light will blink, press this key to vote for 0 ("-");
- Chairman unit: if the system is connected to a PC and if application software is setup for voting control mode by chairman control, key "5" will blink when clicking "Start voting" button in voting interface of application software. The chairman can press this key to enter the voting status. Once the chairman voted, the indicating light will blink again. After confirmation that all delegates voted, the chairman pushes key "5" to close voting. Application software will calculate the voting results.

◆ Yes/Option 2/Response - Key ("YES/2/-")

- In voting mode (Parliamentary), the voting indicating light will blink, press this key to vote for "Yes";
- In voting mode (Multiple choice/Opinion poll), the voting indicating light will blink, press this key to vote for option 2;
- In voting mode (Audience response/Rating), the voting indicating light will blink, press this key to vote for 25 ("-").

◆ No/Option 3/Response 0 Key ("NO/3/0")

- In voting mode (Parliamentary), the voting indicating light will blink, press this key to vote for "No";
- In voting mode (Multiple choice/Opinion poll), the voting indicating light will blink, press this key to vote for option 3;
- In voting mode (Audience response/Rating), the voting indicating light will blink, press this key to vote for 50 ("0").

◆ Abstain/Option 4/Response + Key ("ABSTAIN/4/+")

- In voting mode (Parliamentary), the voting indicating light will blink, press this key to vote

for "Abstain";

- In voting mode (Multiple choice/Opinion poll), the voting indicating light will blink, press this key to vote for option 4;
- In voting mode (Audience response/Rating), the voting indicating light will blink, press this key to vote for 75 ("+").

◆ Option 5/Response ++ Key ("5/++")

- In voting mode (Multiple choice/Opinion poll), the voting indicating light will blink, press this key to vote for option 5;
 - In voting mode (Audience response/Rating), the voting indicating light will blink, press this key to vote for 100 ("++");
- ◆ If not connected to PC, G-series chairman unit can launch 3 keys voting. Press key "2" to start voting. Once the chairman finished his vote and confirmed that all delegates have voted, he selects key "5" to close voting.
 - ◆ For this series discussion unit (with 256×32 LCD), these five keys act as functional keys for menu operation (refer to section 3.2.4.1 for details).

2. Priority key with indicating light (for the chairman unit only):

- ◆ According to the priority mode configuration on the main unit:
 - ◇ If configured as "All mute", all active delegate and VIP microphones will be muted temporarily when this key is pressed and they will resume when the key is released;
 - ◇ If configured as "All off", all active delegate microphones will be switched off when this key is pressed. All active VIP microphones will be muted temporarily and will resume when the key is released.
- ◆ Under "OPEN" and "Apply" mode, pressing this key will clear the request list (deny all delegates' requests to speak);
- ◆ If the chairman microphone is not active, pressing this key will activate it;
- ◆ If the ring tone mode is configured as "ON", a ring tone will be produced when this key is pressed, and the indicating light of the priority key will be turned on.

3. Microphone On/Off key with indicating light (for the chairman unit)

Microphone/request key with indicating light (for the delegate unit):

- ◆ Chairman unit: press this key to activate the microphone and the indicating light;
- ◆ Delegate unit:
 - a. Under “VERRIDE” mode, press this key to activate/deactivate the microphone and the indicating light;
 - b. Under “OPEN” mode,
 - When the number of active microphones does not reach the limitation, press this key to activate/deactivate the microphone. When the microphone is activated, the microphone On/Off button indicating light and the microphone lamp ring will change to red.
 - When the number of active microphones reaches the limitation, press this key to request/cancel request to speak. When requesting to speak, the microphone On/Off button indicating light will blink in red, and the microphone lamp ring will change to blue;
 - c. Under “oice” mode,
 - When not speaking, the microphone On/Off button indicating light remains red;
 - when speaking, the microphone On/Off button indicating light and the microphone lamp ring remain red;
 - d. Under “Apply” mode,
 - When the number of active microphones does not reach the limitation, press this key to request/cancel request to speak and the indicating light will blink when on “request”. The speaking request is approved or rejected by the chairman unit with control facility, only one delegate unit can request at the same time;
 - When the number of active microphones reaches the limitation, none other delegate unit can request to speak, the speaking request is available once one of the activated microphones is switched off.

e. Under “PTT” mode,

- If the maximal number of active microphones is not reached, pressing and holding this key will activate the microphone, and the indicating light will be turned on; releasing the key after speech will turn off the microphone.
- If the maximal number of active microphones has been reached, pressing this key cannot activate the microphone until one of the activated microphones is switched off.

(Refer to section 3.2.4 for details)

4. High light 256 x 32 graphic LCD

- ◆ Can display menu and information in several languages (Simplified Chinese, Traditional Chinese, English, etc.)
- ◆ If the earphone is plugged, the simultaneous interpretation channel number and the language name will be displayed. (HCS-4887D/50 does not have this function)

5. IC card socket

6. Built-in Hi-Fi loudspeaker

- ◆ Mutes automatically to suppress howling when the microphone of the unit is active or when the earphone is inserted.
- ◆ Loudspeaker sends out floor channel audio only. The volume is controlled via the CMU or the application software

7. Microphone socket

3.2.1.2 Side

8. Earphone jack (Ø 3.5 mm)

9. Microphone jack (Ø 3.5 mm)

10. Earphone volume control

11. Simultaneous interpretation channel selector

(HCS-4888D/50 does not have this key)

- ◆ Available when earphone is plugged

3.2.1.3 Back

12. 0.6-meter 6P-DIN cable with standard plug (female x 1)

13. 1.5-meter 6P-DIN cable with standard plug (male x 1)

3.2.2 Installation

G-series discussion unit can be installed as tabletop or flush-mounted.

For flush-mounted:

- a. Make a recess on the table according to the dimensions in figure 3.4;
- b. Drill two $\varnothing 4$ mm screw holes at the bottom of the recess according to figure 3.4. The distance between the centers of the screw holes is 215 mm;
- c. Put the discussion unit into the recess until the decorative sheet can fit with the table-board;
- d. Run the two cables on the back of the discussion unit according to the existing mounting feasibilities
- e. Fix the discussion unit with screws from the bottom. The length of the screws is based on the thickness of the table.

Note:

- ☞ For embedded installation, the supporting edge HCS-4886MP must be ordered separately and fixed onto the unit before delivery.

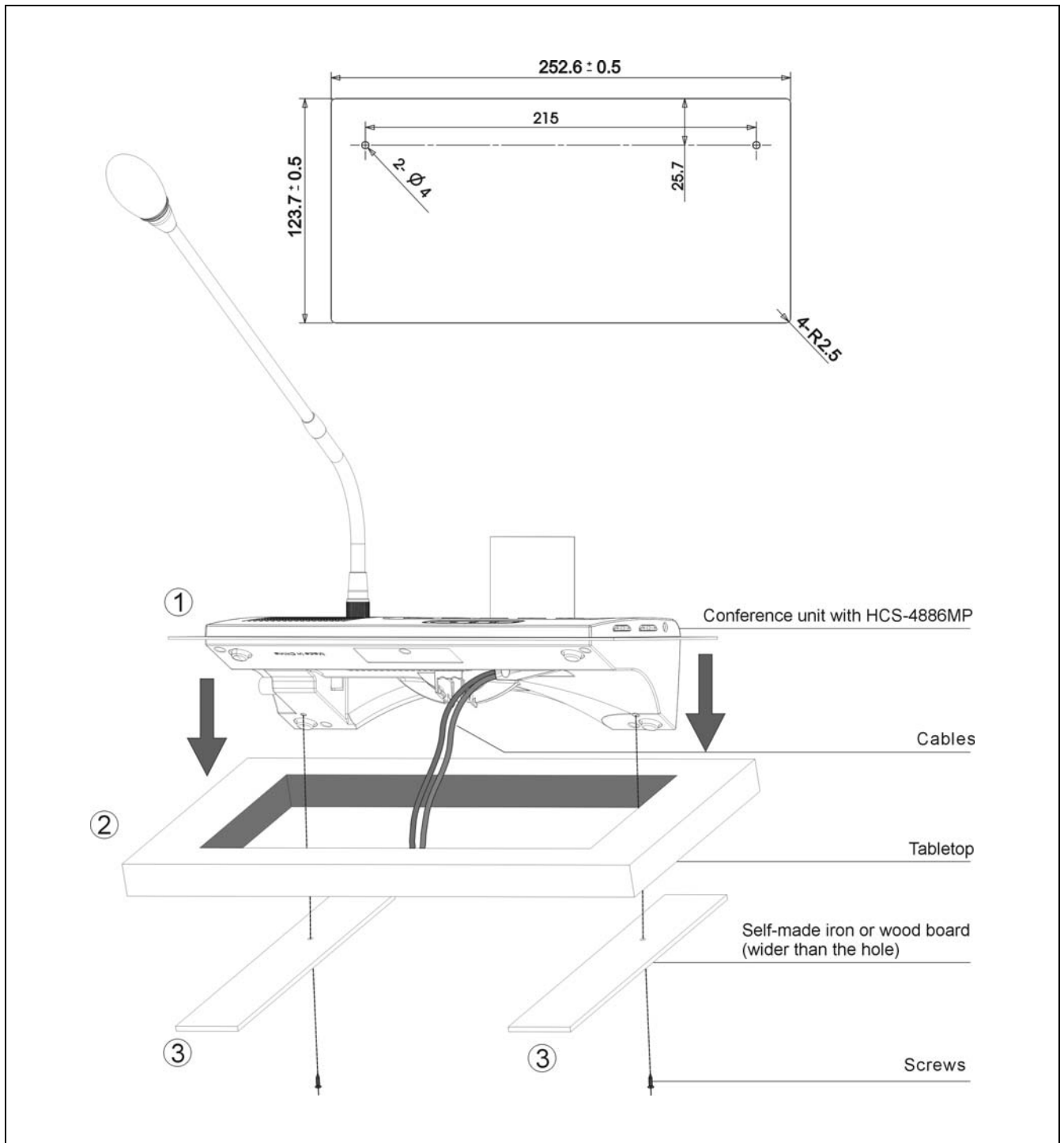


Figure 3.4 Installation diagram of G-series discussion unit flush-mounted (unit: mm)

3.2.3 Connection

3.2.3.1 Connecting to the CMU or the EMU

The G-series discussion unit is equipped with a 1.5-meter long 6P-DIN cable with a standard male connector. To connect to the HCS-4100/50 CMU or the HCS-8300 EMU, just connect the male connector of the first unit to the output of the main unit.

If there is a long distance between the congress unit and the CMU (EMU), CBL6PS extension cable can be used. One end is equipped with a 6P-DIN male connector and the opposite end with a female connector. Just connect the female connector of the cable to the next congress unit, and connect the male connector to the output of the main unit.

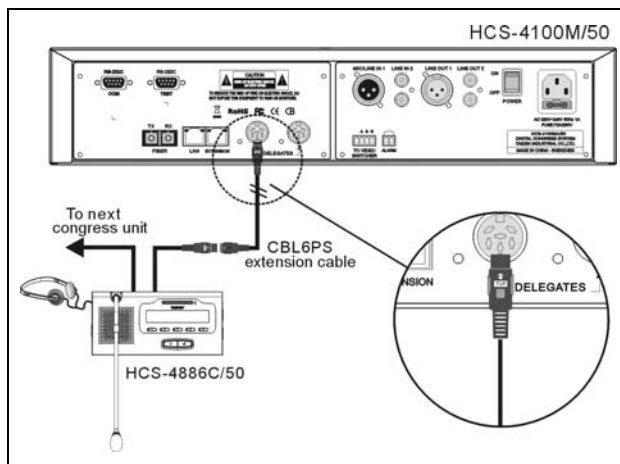


Figure 3.5 G-series discussion unit connected to the CMU or the EMU

Neither the replacement of congress units nor cable faults between congress units will affect the other units if “daisy-chain closed-loop” connection topology is selected. Ring connection, achieved by closing the loop of the daisy-chained units, increases system reliability. To obtain “daisy-chain” ring connection, just connect the last congress unit back to the CMU or the EMU with a CBL6PP extension cable (the cable features a 6P-DIN male connector at each end).

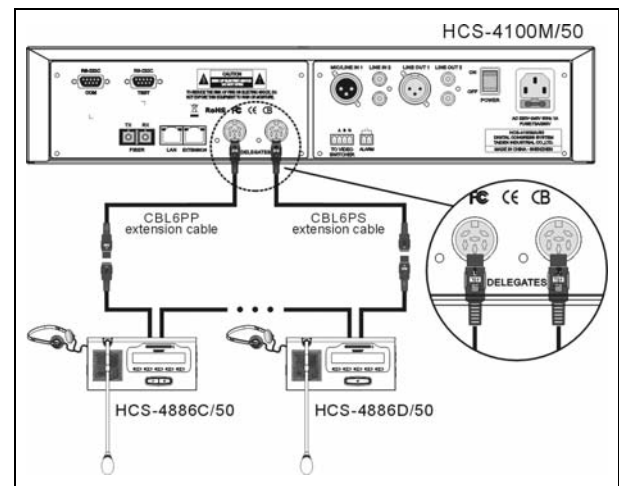


Figure 3.6 Ring connection between the CMU and G-series discussion units

3.2.3.2 Connection between congress units

All congress units of HCS-4100/50 FDSCS are daisy-chained easily and conveniently by dedicated 6P-DIN cables.

When connecting to another congress unit, just connect the 6P-DIN standard female connector on the 0.6-meter cable of the unit to the 6P-DIN standard male connector on the 1.5-meter cable of the next unit.

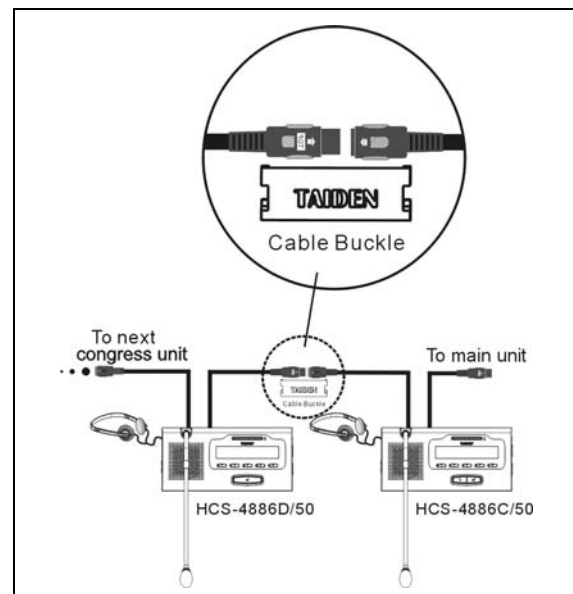
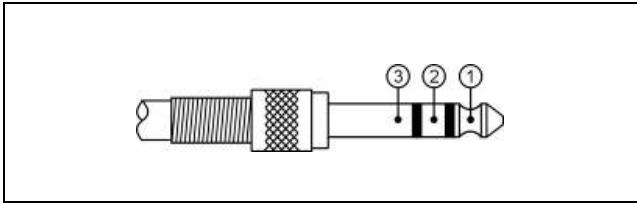


Figure 3.7 “Daisy-chain” connection between G-series discussion units

3.2.3.3 External microphone

An external microphone can be connected to the external microphone jack at the lateral side of the congress unit. The external microphone shall have a Ø 3.5 mm plug, as in the following figure:

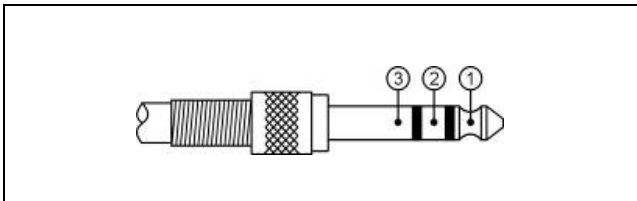


Functions and indications:

- 1.....Signal+
- 2.....Suspend/Ground
- 3.....Ground

3.2.3.4 External earphone

An external earphone can be connected to the external earphone jack at the lateral side of the congress unit. Its volume can be adjusted by the earphone volume control button. The external earphone shall have a Ø 3.5 mm plug, as in the following figure:



Functions and indications:

- 1.....Left stereo channel signal
- 2.....Right stereo channel signal
- 3.....Power ground/Shield

3.2.4 Operation

Before a meeting starts, the congress units need to be configured by the operator, including: numbering and testing. During the meeting, the participants use the congress unit to sign-in, activate microphone, request to speak, vote, read message, etc.

3.2.4.1 Delegate unit

We take HCS-4886D/50 as an example to introduce the operation of the G-series discussion units. The other discussion units of this series feature one or more of these functions.

1. Number

First of all, make sure that the congress units are connected properly to the CMU. All congress units must be numbered when the system is used for the first time or when adding or replacing congress units. The numbering function can be activated by menu operation on the CMU front panel or by application software.

Select “Number” by menu operation from the CMU, press the “MENU” key to confirm. The system now goes to numbering status. *“Press ‘1’ key of all congress units one by one and repower”* will be displayed on the CMU LCD. The number indicating light of all connected congress units will blink. All congress units with a LCD will display “Numbering”. Press key “1” of every congress unit one by one. The number indicating light will be deactivated. Once all congress units numbered, restart the CMU to update the number information.

Note:

☞ When numbering, please number the conference units one by one and do NOT press “number” key of several conference units at the same time.

2. Sign-in (application software needed)

To carry out voting, discussion units with voting and IC-Card reader and voting units should be registered via key press or IC-card. With application software, registration is available by choosing “Seat Sign-in”.

■ Key-press sign-in

In key-press sign-in status, the indicating light on key “Attend/Number/1” will blink, press key “Attend/Number/1” to sign-in and the indicating light will be turned off.

■ IC card sign-in (HCS-4888D/50 does not have this function)

In IC card sign-in status, “Please insert IC card” will be displayed on the LCD. Insert the IC card correctly; a welcome interface will be displayed. Press any key to go to the initial interface. If the IC card is invalid or inserted incorrectly, “Invalid IC card” will be displayed on the LCD. Please insert the IC card correctly or contact the technical support.

3. Speaking

Speaking mode is configured on the CMU. (refer to section 2.4)

A. “Open” mode

■ Active microphone number limitation (1/2/3/4) **NOT reached:**

- The microphone On/Off key indicating light and the microphone illuminated light ring (red) will be activated at the same time as the microphone On/Off key is pressed. The speaker can give his/her speech, the built-in loudspeaker is muted;
- The microphone will be deactivated when the microphone On/Off key is pressed again. The microphone On/Off key indicating light and the microphone illuminated light ring will be deactivated. The built-in loudspeaker will be activated, presumed the earphone is not plugged. If the earphone is plugged, the built-in loudspeaker will be deactivated.

■ Active microphone number limitation (1/2/3/4) **reached:**

- The microphone On/Off key indicating light will blink and the microphone illuminated light ring (blue) will be activated when the key is pressed to request to speak;

- b. Press this key again to cancel the request to speak;
- c. When an active microphone is turned off, the first request microphone will be activated. At most 6 microphones can request to speak.

B. “Override” mode

■ Active microphone number limitation (1/2/3/4) **NOT reached:**

- a. The microphone On/Off key indicating light and the microphone illuminated light ring (red) will be activated at the same time as the microphone On/Off key is pressed. The speaker can give his/her speech, the built-in loudspeaker is muted;
- b. The microphone will be deactivated when the microphone On/Off key is pressed again. The microphone On/Off key indicating light and the microphone illuminated light ring will be deactivated. The built-in loudspeaker will be activated, presumed the earphone is not plugged. If the earphone is plugged, the built-in loudspeaker will be deactivated.

■ Active microphone number limitation (1/2/3/4) **reached:**

If the microphone On/Off key is pressed, its microphone will be activated and the first activated microphone will be deactivated at the same time to maintain the active microphone number limitation.

C. “Voice” mode

■ Active microphone number limitation (1/2/3/4) **NOT reached:**

- a. The microphone On/Off key indicating light remains on. When the delegate speaks into the microphone at a short distance, the microphone will be activated. The microphone illuminated light ring will be activated, and the built-in loudspeaker will be deactivated automatically;
- b. If the delegate does not speak for several seconds, the microphone will be deactivated automatically and the built-in loudspeaker will be activated. The interval time can be adjusted at the main unit (refer to section 2.4.5);

- c. When the microphone is activated, it can be turned off by pressing the microphone On/Off key.

■ Active microphone number limitation (1/2/3/4) **reached:**

All other microphones cannot be activated unless one of the active microphones is turned off.

D. “Apply” mode

- a. Request to speak function: when the microphone On/Off key is pressed, a ring tone will be produced (ring mode has been configured as “ON”). The microphone illuminated light ring (blue) will be activated. The chairman unit can approve or reject his/her request;
- b. When his/her request is approved, the microphone illuminated light ring will turn red, he/she can speak. Only one delegate is enabled to speak;
- c. When the active microphone number limitation is reached, none other delegate can request unless one of the active microphones is turned off.

E. “PTT” mode

■ Active microphone number limitation (1/2/3/4) **NOT reached:**

- a. Press and hold the microphone On/Off button to activate the microphone, the microphone active indicating light and the microphone On/Off button indicating light will be turned on in red. The speaker can give his/her speech, the built-in loudspeaker will be muted;
- b. The microphone will be deactivated when this button is released. The microphone active indicating light and the microphone On/Off button indicating light will be deactivated. The built-in loudspeaker will be activated, presumed the earphone is not plugged. If the earphone is plugged, the built-in loudspeaker will be deactivated.

■ Active microphone number limitation (1/2/3/4) **reached:**

Pressing this key cannot activate the microphone until one of the activated microphones is switched off.

Speaking mode as well as active microphone number limitation can be configured at the main unit. The chairman unit and the VIP unit do not count in the active microphone number limitation. At most 6 microphones can be activated at the same time in a system. VIP units can be assigned by application software - at most 32 VIP units.

A camera can focus an activated microphone automatically (camera position preset by application software). Speaker's video can be exported to and displayed on large screen(s).

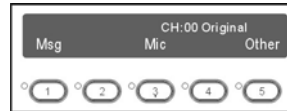
4. Voting

Voting can be originated by the chairman unit (only for 3 keys voting), or by HCS-4100/50 application software.

- The voting button indicating lights of the congress unit start to blink, the delegate can press the voting button to vote;
- For "First key-press valid" voting, the delegate can vote only once, and his/her voting indicating lights will be deactivated and his/her voted item will be highlighted on the LCD after his/her voting;
- For "Last key-press valid" voting, the delegate can change his/her vote. When the delegate voted, the indicating light of his voted key will be activated and all other indicating lights will be deactivated and his/her voted item will be highlighted on the LCD. About 1 second later, all indicating lights will blink again, and the delegate may change his/her vote. His/her last voted key will be valid.
- The voting originated by the chairman unit only supports "Last key-press valid".

5. Channel select (HCS-4887D/50 and HCS-4888D/50 do not have this function)

- When the CMU is connected to interpretation unit(s), simultaneous interpretation function will work. To use the channel selector, an earphone must be plugged in. When the earphone is plugged, the LCD will display the simultaneous interpretation channel number and language name. The delegate can select a suitable language to listen to by means of the channel selector.



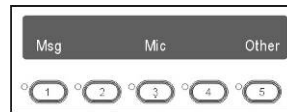
- When the earphone is pulled out, the LCD will not display the simultaneous interpretation information anymore, and the built-in loudspeaker will switch to floor audio channel.

6. Volume control

- The volume of the built-in loudspeaker can be adjusted by the master volume control knob on the main unit;
- When the earphone is plugged, its volume can be adjusted by the earphone volume control on the lateral side of the unit. The built-in loudspeaker will be deactivated.

7. LCD display (HCS-4888D/50 does not have this function)

After initialization, the following interface will be displayed on the LCD:



A. "Message" (key "1")

- Use this key to read a message. When a PC is connected, the operator can edit and send a message to congress unit(s).
- On receipt of a message, a ring tone will be emitted by the built-in loudspeaker and "You have got a new message" will be displayed on its LCD and the indicating light of key "5" will blink. Press key "5" to read the corresponding message.
- At most 4 messages can be stored in the congress unit, In case of more incoming messages; the first received message will be overlapped.

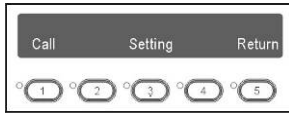
B. "Microphone" (key "3")

Use this key to display microphone information, including: active microphone number (including chairman, delegate and VIP), request amount:



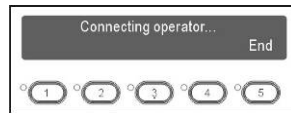
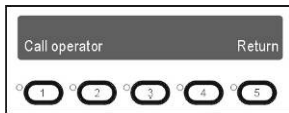
C. “Other” (key “5”)

Use this key to request intercom, setup LCD display language and system information:



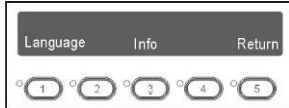
■ “Call”

The earphone shall be plugged to use the intercom function. If not, it will remind you to plug the earphone. If the current unit is using the intercom function, it will remind you that the line is busy. Press “Call” (key “1”) to use the intercom function, and the following interface at the left side is displayed. When the operator approved your request, then the following interface at the right side is shown:



■ “Setting”

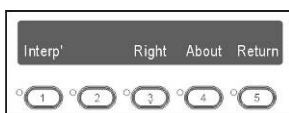
Press “Setting” (key “3”), and the following interface is shown:



- Press “**Language**” (key “1”) to select the LCD display language between several languages. The range is limited by the configuration in the CMU (refer to section 2.4);



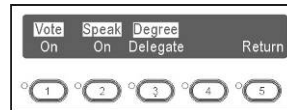
- Press “**Info**” (key “3”), and the following interface is shown:



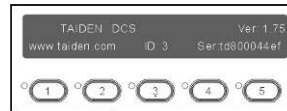
- Press “**Interpretation**” (key “1”) to run through information about all interpretation languages:



- Press “**Right**” (key “3”) to check the rights of this unit:



- Press “**About**” (key “4”) to display the product information:



8. VIP unit

- Any delegate unit can be assigned as a VIP unit by the HCS-4100/50 application software. At most 32 VIP units can be assigned;
- As long as the active microphone number does not exceed 6 (including chairman/delegate/VIP), the microphone of the VIP unit can be activated freely;
- If the priority mode is configured as “All off”, all active delegate microphones will be turned off when the chairman presses his priority key, and all active VIP microphones will be muted temporarily. They will restore when the chairman releases his priority key;
- If the active microphone number reached 6, the microphone illuminated light ring (blue) will be activated and the microphone On/Off key indicating light will blink when the microphone On/Off key is pressed. The microphone cannot be turned on unless one of the active microphones is deactivated.

3.2.4.2 Chairman unit

The chairman unit features all the functions of a delegate unit, and the following additional functions:

1. Priority

- If the priority mode on the main unit is configured as “All mute”, all active delegate and VIP microphones will be muted temporarily when this key is pressed and they will restore when this key is released;
- If configured as “All off”, all active delegate microphones will be turned off and the request-to-speak list will be purged (in “Open” mode and “Apply” mode) when this key is pressed. All active VIP microphones will be muted temporarily when this key is pressed. They will restore when this key is released.

2. Speaking

- If the number of active microphones in the system is less than 6 (including chairman /delegate /VIP), the chairman can activate his/her microphone normally, the operation is the same as for the delegate unit (refer to section 3.2.4.1).
- If the number of active microphones in the system is 6, the chairman cannot activate his/her microphone. But he/she can use the “Priority” key to “All mute” or “All off” other microphones and give his/her speech.

3. Controlling delegate unit

A. Approve delegate unit's request to speak

Under “Apply” mode, when a delegate requests to speak, a ring tone will be emitted by the built-in loudspeaker in the chairman's unit.

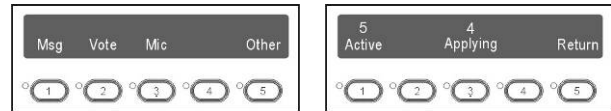


The chairman can now approve delegate's request and activate delegate's microphone by pressing key “1” or reject delegate's request by pressing key “5”.

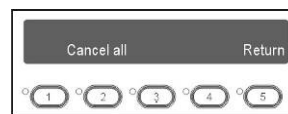
Only one delegate can request to speak at one time and a ring tone will also be emitted by the built-in loudspeaker. The chairman can use the “Priority” key to execute “All mute” or “All off” operation.

B. Turn off delegate microphone or reject delegate unit's request to speak

The initial interface of the chairman unit is shown in the following figure at the left side. Press the “Microphone” (key “3”) to go to the microphone status interface as in the following figure at the right side:

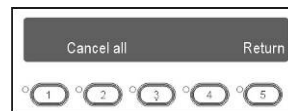


- Press “**Active**” (key “1”) to go to the active microphone control interface:



If any delegate's microphone is active, “Cancel all” (key “2”) will be available and the chairman can press this key to deactivate all active delegate's microphone.

- Press “**Applying**” (key “3”) to control the “request to speak” interface:



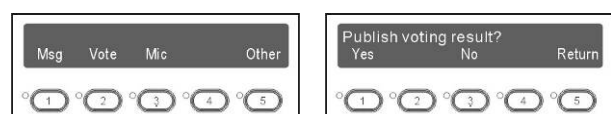
If connected to the PC, “Cancel all” (key “2”) will be available and the chairman can press this key to reject all requests (refer to application software user's manual).

4. Voting

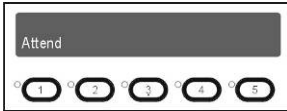
A. Without PC

HCS-4886C/50 chairman unit can originate voting without a PC:

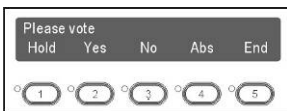
- a. In the initial interface of the chairman unit, press the “Vote” (key “2”) to go to the voting control interface as shown in the following figure:



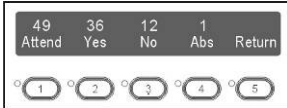
b. If “Yes” is selected, the voting results will be displayed on the LCDs of all congress units; if “No” is selected, the voting results will be displayed only on the LCD of the chairman unit. After selection, the sign-in indicating light of all congress units will blink. The delegates can press sign-in key to sign-in. After sign-in, the voting indicating lights will blink, the delegate is now enabled to vote:



c. Only 3 keys voting can be executed in case of a chairman unit originated voting (“Yes/No/Abstain”) and only “Last key-press valid” is available. The chairman can pause/end voting:



d. The chairman presses “End” key to finish voting. The voting indicating light of all congress units will be deactivated. The voting results and sign-in statistics will be displayed on the chairman unit:

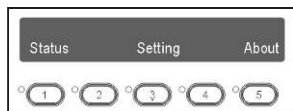


B. Connected to PC

- When controlled by the application software, nominative or ballot voting are available;
- “First key-press valid” or “Last key-press valid” are available;
- Voting can be controlled by application software. The voting operation of the chairman unit and the delegate unit are identical. In this mode, voting can also be controlled by the chairman unit. “Start voting” indicating light on the chairman unit will blink. Voting starts once the chairman pressed the “Start voting” key.

3.2.4.3 Operator unit

The operator unit is a dedicated unit used by an operator to control the intercom function. Its initial interface is shown in the following figure:



■ Intercom function

When a contribution unit requests for intercom, the following interface at the left side will prompt. The operator can accept his/her request and the following interface at the right side is shown:

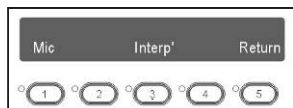


The request is accepted by pressing key “1”. The corresponding interface is displayed at the right. The request is refused by pressing key “5”.

■ Other operation

A. “Status” (key “1”)

Press “Status” (key “1”) to display microphone and Interpretation information, the following interface will be shown:



- Press “**Mic**” (key “1”) to display the microphone information, including: active microphone number (including chairman, delegate and VIP), request amount:



- Press “**Interpretation**” (key “3”) to run through the information on all interpretation languages:



B. “Setting” (key “3”)

Press “Setting” (key “3”), and the following interface appears:

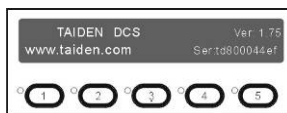


- Press “**Language**” (key “1”) to select the LCD display language between several languages. The range is limited by the configuration at the CMU (refer to section 2.4);



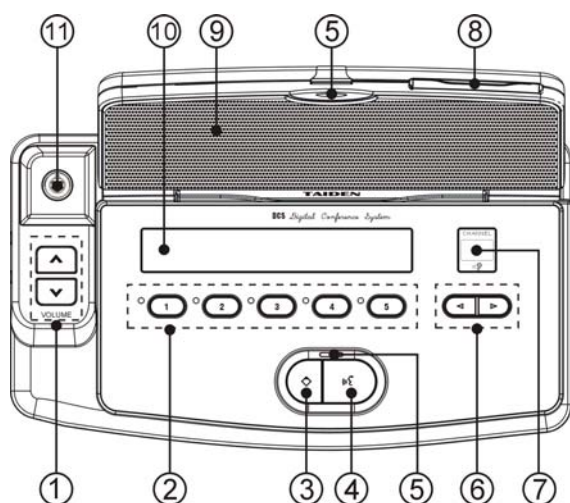
C. “About” (key “5”)

Press “About” (key “5”) to display the product information:

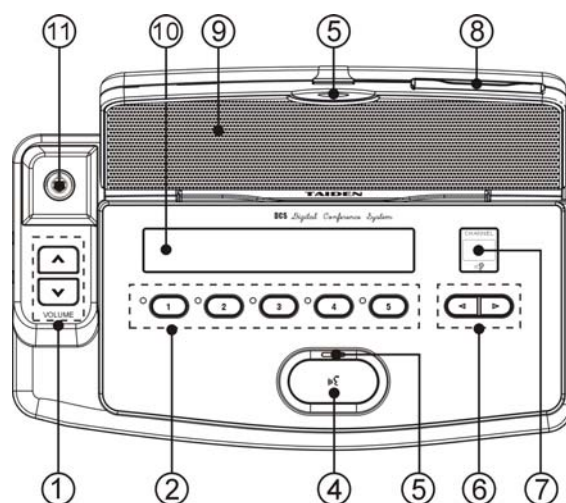


3.3 HCS-4380/82/70/71 (E-) series congress unit

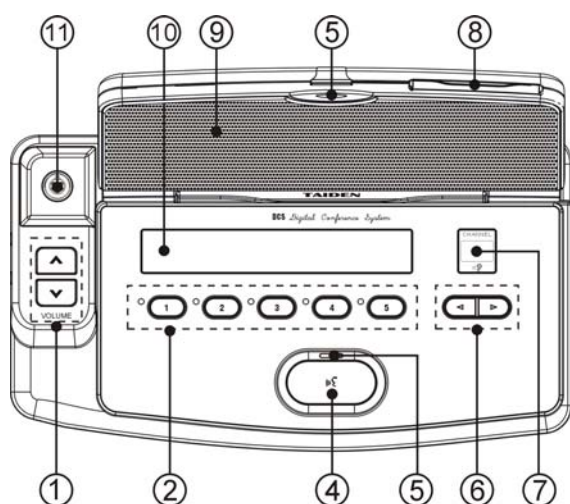
3.3.1 Functions and indications



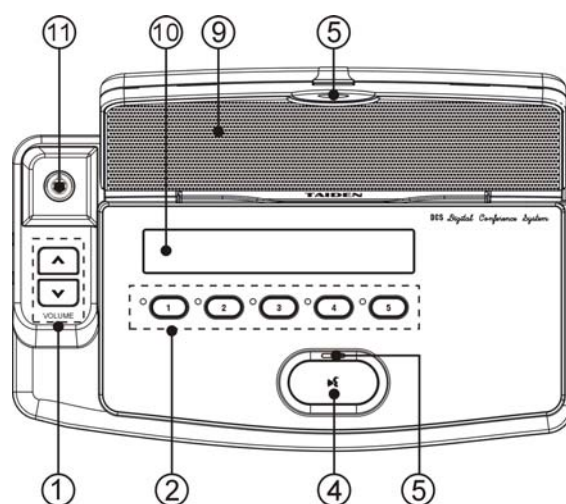
HCS-4380SC/50 chairman unit



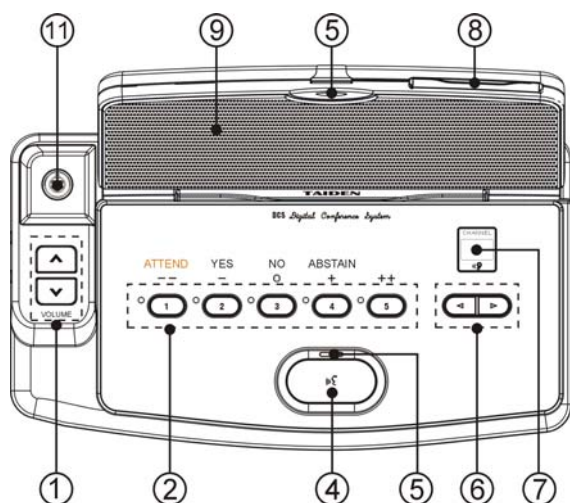
HCS-4380SD/50 delegate unit



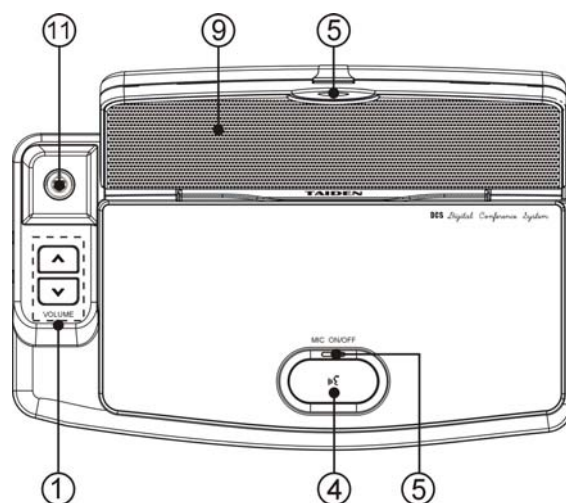
HCS-4380SX/50 operator unit



HCS-4382SD/50 delegate unit



HCS-4370SDE/50 delegate unit



HCS-4371SD/50 delegate unit

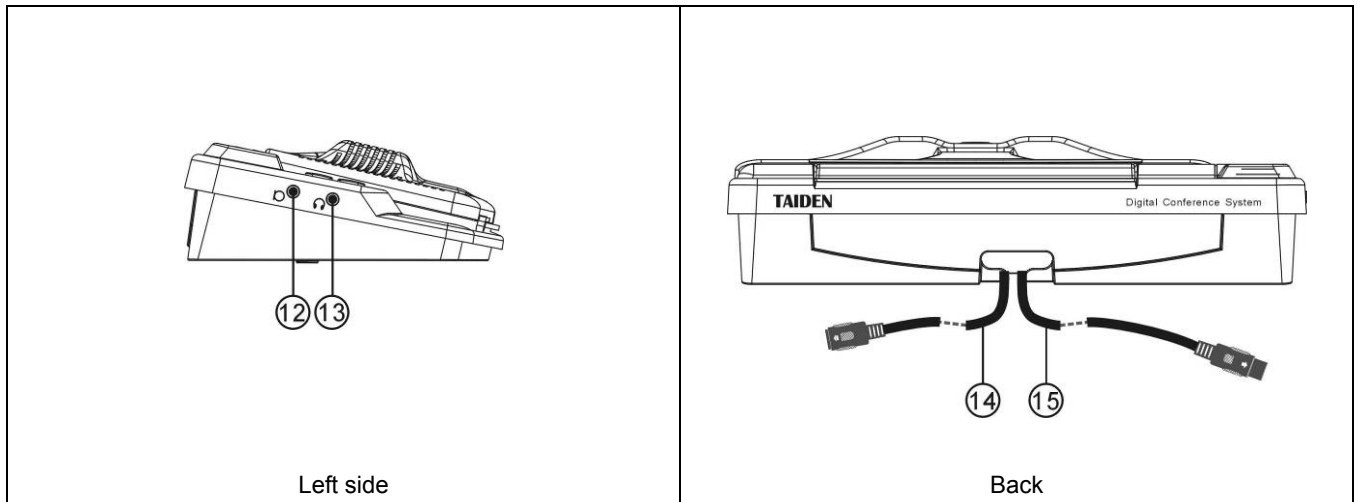


Figure 3.8 E-series discussion units

3.3.1.1 Front

1. Earphone volume control

2. Multi functional keys with indicating light (5 keys):

♦ Start/Stop/Sign-in/Number/Option1/Response-- Key ("ATTEND/NUMBER/1/--")

- In key-press sign-in mode, the sign-in indicating light will blink, press this key to sign-in;
- In voting mode (Multiple choice/Opinion poll), the voting indicating light will blink, press this key to vote for option 1;
- In voting mode (Audience response/Rating), the voting indicating light will blink, press this key to vote for 0 ("-");
- Chairman unit: if the system is connected to a PC and if application software is setup for voting control mode by chairman control, key "5" will blink when clicking "Start voting" button in the voting interface of the application software. The chairman can press this key to enter the voting status. Once the chairman voted, the indicating light will blink again. After confirmation that all delegates voted, the chairman pushes key "5" to close voting. Application software will calculate the voting results.

♦ Yes/Option 2/Response - Key ("YES/2/-")

- In voting mode (Parliamentary), the voting indicating light will blink, press this key to vote for "Yes";
- In voting mode (Multiple choice/Opinion poll), the voting indicating light will blink, press this key to vote for option 2;

- In voting mode (Audience response/Rating), the voting indicating light will blink, press this key to vote for 25 ("-").

♦ No/Option 3/Response 0 Key ("NO/3/0")

- In voting mode (Parliamentary), the voting indicating light will blink, press this key to vote for "No";
- In voting mode (Multiple choice/Opinion poll), the voting indicating light will blink, press this key to vote for option 3;
- In voting mode (Audience response/Rating), the voting indicating light will blink, press this key to vote for 50 ("0").

♦ Abstain/Option 4/Response + Key ("ABSTAIN/4/+")

- In voting mode (Parliamentary), the voting indicating light will blink, press this key to vote for "Abstain";
- In voting mode (Multiple choice/Opinion poll), the voting indicating light will blink, press this key to vote for option 4;
- In voting mode (Audience response/Rating), the voting indicating light will blink, press this key to vote for 75 ("+").

♦ Option 5/Response ++ Key ("5/++")

- In voting mode (Multiple choice/Opinion poll), the voting indicating light will blink, press this key to vote for option 5;
- In voting mode (Audience response/Rating), the voting indicating light will blink, press this key to vote for 100 ("++").

- ◆ If not connected to PC, the E-series chairman unit can launch 3 keys voting. Press key “2” to start voting. Once the chairman finished his vote and confirmed that all delegates have voted, he selects key “5” to close voting.

- ◆ For this series discussion unit (with 256×32 LCD), these five keys act as functional keys for menu operation (refer to section 3.3.4.1 for details).

3. Priority key with indicating light (for the chairman unit only):

- ◆ According to the priority mode configuration at the main unit:
 - ◇ If configured as “All mute”, all active delegate and VIP microphones will be muted temporarily when this key is pressed and they will resume when the key is released;
 - ◇ If configured as “All off”, all active delegate microphones will be switched off when this key is pressed. All active VIP microphones will be muted temporarily and will resume when the key is released.
- ◆ Under “OPEN” and “Apply” mode, pressing this key will clear the request list (deny all delegates’ requests to speak);
- ◆ If the chairman microphone is not active, pressing this key will activate it;
- ◆ If the ring tone mode is configured as “ON”, a ring tone will be produced when this key is pressed, and the indicating light of the priority key will be turned on.

4. Microphone On/Off key with indicating light (for the chairman unit)

Microphone/request key with indicating light (for the delegate unit):

- ◆ Chairman unit: press this key to activate the microphone and the indicating light;
- ◆ Delegate unit:
 - Under “OVERRIDE” mode, press this key to activate/deactivate the microphone and the indicating light;
 - Under “OPEN” mode,
 - When the number of active microphones does not reach the limitation, press this key to activate/deactivate the microphone. When the microphone is activated, the microphone On/Off button indicating light and the microphone lamp ring will change to red.

- When the number of active microphones reaches the limitation, press this key to request/cancel request to speak. When requesting to speak, the microphone On/Off button indicating light will blink in red, and the microphone lamp ring will change to blue;

c. Under “VOICE” mode,

- when not speaking, the microphone On/Off button indicating light remains red;
- when speaking, the microphone On/Off button indicating light and the microphone lamp ring remain red;

d. Under “APPLY” mode,

- When the number of active microphones does not reach the limitation, press this key to request/cancel request to speak and the indicating light will blink when on “request”. The speaking request is approved or rejected by the chairman unit with control facility, only one delegate unit can request at the same time;
- When the number of active microphones reaches the limitation, none other delegate unit can request to speak, the speaking request is available once one of the activated microphones is switched off.

e. Under “PTT” mode,

- If the maximal number of active microphones is not reached, pressing and holding this key will activate the microphone, and the indicating light will be turned on; releasing the key after speech will turn off the microphone.
- If the maximal number of active microphones has been reached, pressing this key cannot activate the microphone until one of the activated microphones is switched off.

(Refer to section 3.3.4 for details)

5. Microphone On/Off key indicating light (red)

- ◆ The indicating light remains on when the microphone is activated;
- ◆ The indicating light will blink on “request”;
- ◆ Under “Voice” mode, the indicating light remains on;
- ◆ The indicating light remains on when the priority key is pressed.

6. Simultaneous interpretation channel selector

- ◆ Available when the earphone is plugged

7. Simultaneous interpretation channel number display

8. IC card socket

9. Built-in Hi-Fi loudspeaker

- ♦ Mutes automatically to suppress howling when the microphone of the unit is active or when the earphone is inserted.
- ♦ Loudspeaker sends out floor channel audio only. The volume is controlled via the CMU or the application software.

10. High light 256 x 32 graphic LCD

- ♦ Can display menu and information in several languages (Simplified Chinese, Traditional Chinese, English, etc.)

11. Microphone socket

3.3.1.2 Side

12. Microphone jack (Ø 3.5 mm)

13. Earphone jack (Ø 3.5 mm)

3.3.1.3 Back

14. 0.6-meter 6P-DIN cable with standard plug (female x 1)

15. 1.5-meter 6P-DIN cable with standard plug (male x 1)

3.3.2 Installation

E-series discussion unit can be installed as tabletop or flush-mounted.

For flush-mounted:

- a. Make a recess in the table according to the dimensions in figure 3.9;
- b. Drill two $\varnothing 4$ mm screw holes at the bottom of the recess according to figure 3.9. The distance between the centers of the screw holes is 80 mm;
- c. Run the two cables on the back of discussion unit according to the mounting feasibilities existing on site
- d. Put the discussion unit into the recess and fix it with screws from the bottom. The length of the screws is based on the thickness of the table.

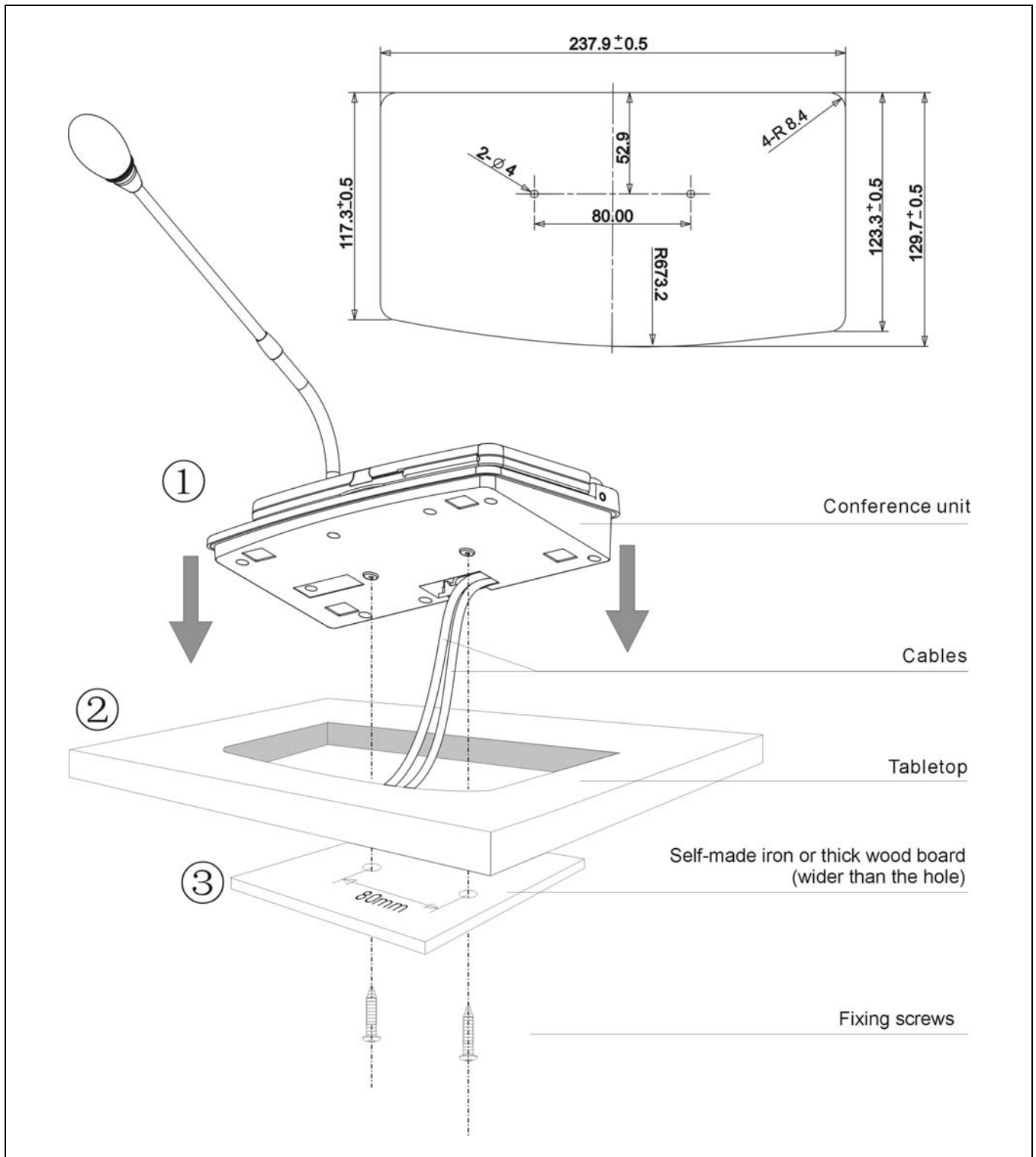


Figure 3.9 Installation diagram of E-series discussion unit flush-mounted (unit: mm)

3.3.3 Connection

3.3.3.1 Connecting to the CMU or the EMU

The E-series discussion unit is equipped with a 1.5-meter long 6P-DIN cable with a standard male connector. To connect to the HCS-4100/50 CMU or the HCS-8300 EMU, just connect the male connector of the first unit to the output of the main unit.

If there is a long distance between the congress unit and the CMU (EMU), CBL6PS extension cable can be used. One end is equipped with a 6P-DIN male connector and the opposite end with a female connector. Just connect the female connector of the cable to the next congress unit, and connect the male connector to the output of the main unit.

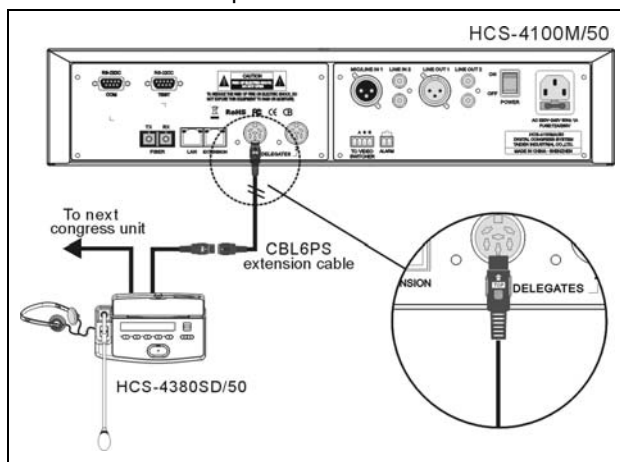


Figure 3.10 E-series discussion unit connected to the CMU or the EMU

Neither the replacement of congress units nor cable faults between congress units will affect the other units if “daisy-chain closed-loop” connection topology is selected. Ring connection, achieved by closing the loop of the daisy-chained units, increases system reliability. To obtain “daisy-chain” ring connection, just connect the last congress unit back to the CMU or the EMU with a CBL6PP extension cable (the cable features a 6P-DIN male connector at each end).

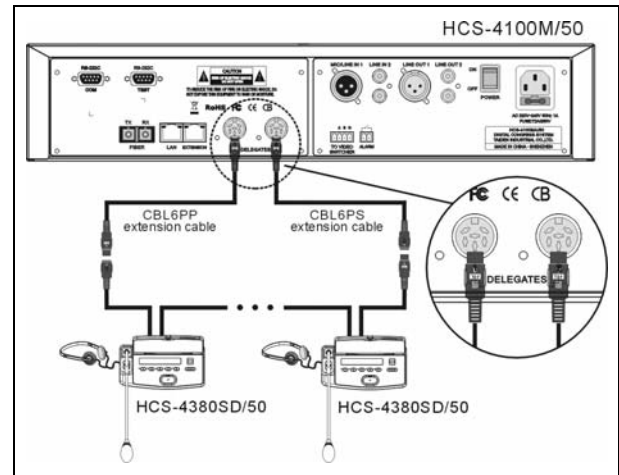


Figure 3.11 Ring connection between the CMU and E-series discussion units

3.3.3.2 Connection between congress units

All congress units of HCS-4100/50 FDGS are daisy-chained easily and conveniently by dedicated 6P-DIN cables.

When connecting to another congress unit, just connect the 6P-DIN standard female connector on the 0.6-meter cable of the unit to the 6P-DIN standard male connector on the 1.5-meter cable of the next unit.

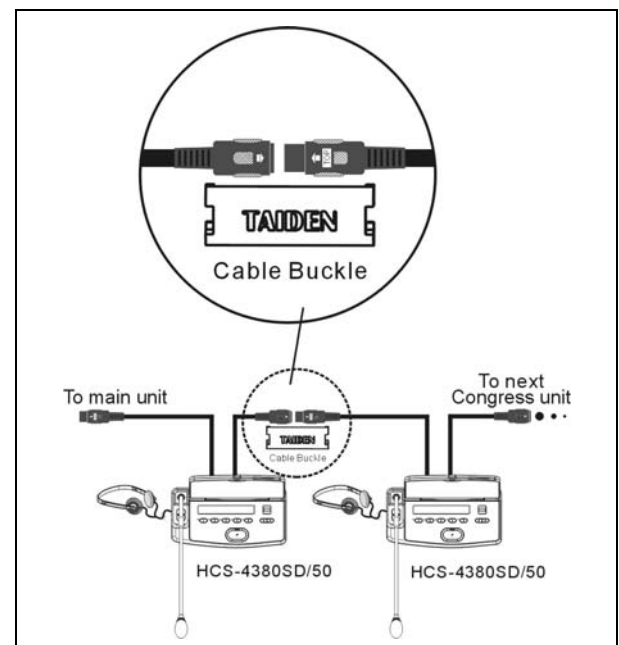
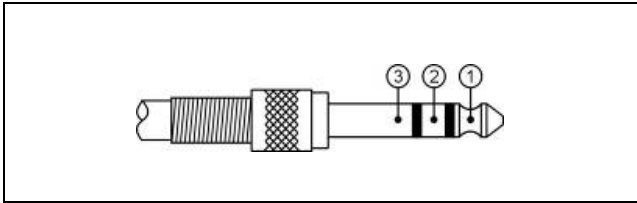


Figure 3.12 “Daisy-chain” connection between E-series discussion units

3.3.3.3 External microphone

An external microphone can be connected to the external microphone jack at the lateral side of the congress unit. The external microphone shall have a Ø 3.5 mm plug, as in the following figure:

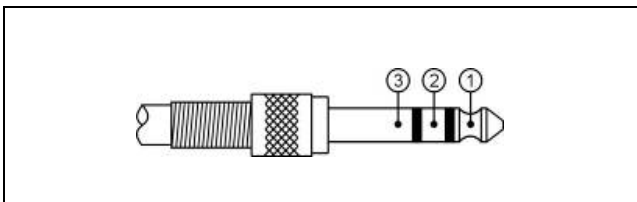


Functions and indications:

- 1.....Signal+
- 2.....Suspend/Ground
- 3.....Ground

3.3.3.4 External earphone

An external earphone can be connected to the external earphone jack at the lateral side of the congress unit. Its volume can be adjusted by the earphone volume control button. The external earphone shall have a Ø 3.5 mm plug, as in the following figure:



Functions and indications:

- 1.....Left stereo channel signal
- 2.....Right stereo channel signal
- 3.....Power ground/Shield

3.3.4 Operation

Before a meeting starts, the congress units need to be configured by the operator, including: numbering and testing. During the meeting, the participants use the congress unit to sign-in, activate microphone, request to speak, vote, read message, etc.

3.3.4.1 Delegate unit

We take HCS-4380SD/50 as an example to introduce the operation of E-series discussion units. The other discussion units of this series feature one or more of these functions.

1. Number

First of all, make sure that the congress units are connected properly to the CMU. All congress units must be numbered when the system is used for the first time or when adding or replacing congress units. The numbering function can be activated by menu operation on the CMU front panel or by application software.

Select "Number" by menu operation from the CMU, press the "MENU" key to confirm. The system now goes to numbering status. *"Press '1' key of all congress units one by one and repower"* will be displayed on the CMU LCD. The number indicating light of all connected congress units will blink. All congress units with a LCD will display "Numbering". Press key "1" (microphone On/Off key for HCS-4371SD/50) of every congress unit one by one. The number indicating light will be deactivated. Once all congress units numbered, restart the CMU to update the number information.

Note:

☞ When numbering, please number the conference units one by one and do NOT press "number" key of several conference units at the same time.

2. Sign-in (application software needed)

To carry out voting, discussion units with voting and IC-Card reader and voting units should be registered via key press or IC-card. With application software, registration is available by choosing "Seat Sign-in".

- **Key-press sign-in** (HCS-4371SD/50 does not have this function)

In key-press sign-in status, the indicating light on key "1" will blink, press key "1" to sign-in and the indicating light will be turned off.

- **IC card sign-in** (HCS-4371SD/50 and HCS-4382SD/50 do not have this function)

▪ Congress unit with LCD

In IC card sign-in status, "Please insert IC card" will be displayed on the LCD. Insert the IC card correctly; a welcome interface will be displayed.

Press any key to go to the initial interface. If the IC card is invalid or inserted incorrectly, "Invalid IC card" will be displayed on the LCD. Please insert the IC card correctly or contact the technical support.

▪ Congress unit without LCD

In IC card sign-in status, "Cd" will be displayed on the SI channel display. Insert the IC card correctly; channel number "00" will be displayed. If the IC card is invalid or inserted incorrectly, "Er" will be displayed on the SI channel display. Please insert the IC card correctly or contact the technical support.

3. Speaking

Speaking mode is configured on the CMU. (refer to section 2.4)

A. "Open" mode

- Active microphone number limitation (1/2/3/4) **NOT reached**:

- a. The microphone On/Off key indicating light and the microphone illuminated light ring (red) will be activated at the same time as the microphone On/Off key is pressed. The speaker can give his/her speech, the built-in loudspeaker is muted;
- b. The microphone will be deactivated when the microphone On/Off key is pressed again. The microphone On/Off key indicating light and the microphone illuminated light ring will be deactivated. The built-in loudspeaker will be activated, presumed the earphone is not plugged. If the earphone is plugged, the built-in loudspeaker will be deactivated.

■ Active microphone number limitation (1/2/3/4)

reached:

- a. The microphone On/Off key indicating light will blink and the microphone illuminated light ring (blue) will be activated when the key is pressed to request to speak;
- b. Press this key again to cancel the request to speak;
- c. When an active microphone is turned off, the first request microphone will be activated. At most 6 microphones can request to speak.

B. “Override” mode

■ Active microphone number limitation (1/2/3/4) **NOT reached:**

- a. The microphone On/Off key indicating light and the microphone illuminated light ring (red) will be activated at the same time as the microphone On/Off key is pressed. The speaker can give his/her speech, the built-in loudspeaker is muted;
- b. The microphone will be deactivated when the microphone On/Off key is pressed again. The microphone On/Off key indicating light and the microphone illuminated light ring will be deactivated. The built-in loudspeaker will be activated, presumed the earphone is not plugged. If the earphone is plugged, the built-in loudspeaker will be deactivated.

■ Active microphone number limitation (1/2/3/4) **reached:**

If the microphone On/Off key is pressed, its microphone will be activated and the first activated microphone will be deactivated at the same time to maintain the active microphone number limitation.

C. “Voice” mode

■ Active microphone amount limitation (1/2/3/4) **NOT reached:**

- a. The microphone On/Off key indicating light remains on. When the delegate speaks into the microphone at a short distance, the microphone will be activated. The microphone illuminated light ring will be activated, and the built-in loudspeaker will be deactivated automatically;

b. If the delegate does not speak for several seconds, the microphone will be deactivated automatically and the built-in loudspeaker will be activated. The interval time can be adjusted from the main unit (refer to section 2.4);

- c. When the microphone is activated, pressing the microphone On/Off key turns it off.

■ Active microphone number limitation (1/2/3/4) **reached:**

All other microphones cannot be activated unless one of the active microphones is turned off.

D. “Apply” mode

- a. Request to speak function: when the microphone On/Off key is pressed, a ring tone will be produced (ring mode has been configured as “ON”). The microphone illuminated light ring (blue) will be activated. The chairman unit can approve or reject his/her request;
- b. When his/her request is approved, the microphone illuminated light ring will turn red, he/she can speak. Only one delegate is enabled to speak;
- c. When the active microphone number limitation is reached, none other delegate can request unless one of the active microphones is turned off.

E. “PTT” mode

■ Active microphone number limitation (1/2/3/4) **NOT reached:**

- a. Press and hold the microphone On/Off button to activate the microphone, the microphone active indicating light and the microphone On/Off button indicating light will turn red. The speaker can give his/her speech, the built-in loudspeaker will be muted;
- b. The microphone will be deactivated when this button is released. The microphone active indicating light and the microphone On/Off button indicating light will be deactivated. The built-in loudspeaker will be activated, presumed the earphone is not plugged. If the earphone is plugged, the built-in loudspeaker will be deactivated.

- Active microphone number limitation (1/2/3/4) **reached:**

Pressing this key cannot activate the microphone until one of the activated microphones is switched off.

The speaking mode as well as the active microphone number limitation can be configured at the main unit. The chairman unit and the VIP unit do not count in the active microphone number limitation. At most 6 microphones can be activated at the same time in a system. VIP units can be assigned by application software - at most 32 VIP units.

A camera can focus an activated microphone automatically (camera position preset by application software). Speaker's video can be exported to and displayed on large screen(s).

4. Voting (HCS-4371SD/50 has no this function)

Voting can be originated by the chairman unit (only for 3 keys voting), or by the HCS-4100/50 application software.

- The voting button indicating lights of the congress unit start to blink, the delegate can press voting button to vote;
- For "First key-press valid" voting, the delegate can vote only once, and his/her voting indicating lights will be deactivated and his/her voted item will be highlighted on the LCD after his/her voting;
- For "Last key-press valid" voting, the delegate can change his/her vote. When the delegate voted, the indicating light of his voted key will be activated and all other indicating lights will be deactivated and his/her voted item will be highlighted on the LCD. About 1 second later, all indicating lights will blink again, and the delegate can change his/her vote. His/her last voted key will be valid.
- The voting originated by the chairman unit only supports "Last key-press valid".

5. Channel select (HCS-4371SD/50 and HCS-4382SD/50 do not have this function)

- When the CMU is connected to interpretation unit(s), simultaneous interpretation function will work and the channel selector will be activated. To use the channel selector, an earphone must be

plugged in. When the earphone is plugged, the backlight of the channel select display lights up. The delegate can select a suitable language to listen to by means of the channel selector.

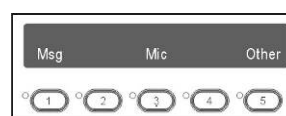
- When the earphone is pulled out, the backlight of the channel select display will extinguish and the built-in loudspeaker will switch to floor audio channel.

6. Volume control

- The volume of the built-in loudspeaker can be adjusted by the master volume control knob on the main unit;
- When the earphone is plugged, its volume can be adjusted by the earphone volume control at the top of the unit. The built-in loudspeaker will be deactivated.

7. LCD display (HCS-4370SD/50 and HCS-4371SD/50 do not have this function)

After initialization, the following interface will be displayed on the LCD:

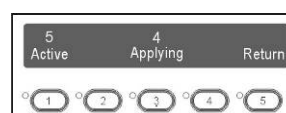


A. "Message" (key "1")

- Use this key to read a message. When a PC is connected, the operator can edit and send a message to congress unit(s).
- On receipt of a message, a ring tone will be emitted by the built-in loudspeaker and "You have got a new message" will be displayed on its LCD and the indicating light of key "5" will blink. Press key "5" to read the corresponding message.
- At most 4 messages can be stored in the congress unit, In case of more incoming messages, the first received message will be overlapped.

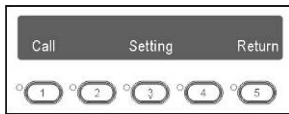
B. "Microphone" (key "3")

Use this key to display microphone information, including: active microphone number (including chairman, delegate and VIP), request amount:



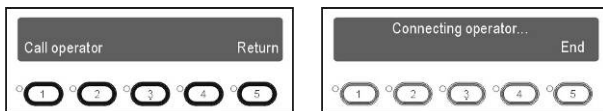
C. “Other” (key “5”)

Use this key to request intercom, setup LCD display language and system information:



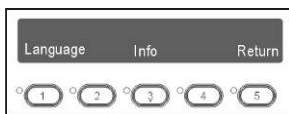
■ “Call”

The earphone shall be plugged to use the intercom function. If not, it will remind you to plug the earphone. If the current unit is using the intercom function, it will remind you that the line is busy. Press “Call” (key “1”) to use the intercom function, and the following interface at the left side is shown. When the operator approved your request, then the following interface at the right side is shown:



■ “Setting”

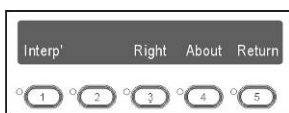
Press “Setting” (key “3”), and the following interface is shown:



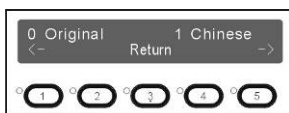
- Press “**Language**” (key “1”) to select the LCD display language between several languages. The range is limited by the configuration in the CMU (refer to section 2.4);



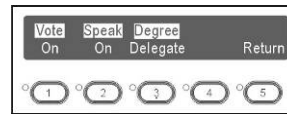
- Press “**Info**” (key “3”), and the following interface is shown:



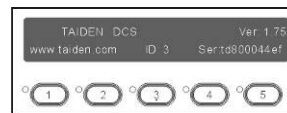
- Press “**Interpretation**” (key “1”) to run through information about all interpretation languages:



- Press “**Right**” (key “3”) to check the rights of this unit:



- Press “**About**” (key “4”) to display the product information:



8. VIP unit

- Any delegate unit can be assigned as a VIP unit by the HCS-4100/50 application software. At most 32 VIP units can be assigned;
- As long as the active microphone number does not exceed 6 (including chairman/delegate/VIP), the microphone of the VIP unit can be activated freely;
- If the priority mode is configured as “All off”, all active delegate microphones will be turned off when the chairman presses his priority key, and all active VIP microphones will just be muted temporarily. They will restore when the chairman releases his priority key;
- If the active microphone number reached 6, the microphone illuminated light ring (blue) will be activated and the microphone On/Off key indicating light will blink when the microphone On/Off key is pressed. The microphone cannot be turned on unless one of the active microphones is deactivated.

3.3.4.2 Chairman unit

The chairman unit features all functions of a delegate unit, and the following additional functions:

1. Priority

- If the priority mode on the main unit is configured as “All mute”, all active delegate and VIP microphones will be muted temporarily when this key is pressed and they will restore when this key is released;
- If configured as “All off”, all active delegate microphones will be turned off and the request-to-speak list will be purged (in “Open” mode and “Apply” mode) when this key is pressed. All active VIP microphones will be muted temporarily when this key is pressed. They will restore when this key is released.

2. Speaking

- If the number of active microphones in the system is less than 6 (including chairman /delegate /VIP), the chairman can activate his/her microphone normally, the operation is the same as for the delegate unit (refer to section 3.3.4.1).
- If the number of active microphones in the system is 6, the chairman cannot activate his/her microphone. But he/she can use the “Priority” key to “All mute” or “All off” other microphones and give his/her speech.

3. Controlling delegate unit

A. Approve delegate unit's request to speak

Under “APPLY” mode, when a delegate requests to speak, a ring tone will be emitted by the built-in loudspeaker in the chairman's unit.

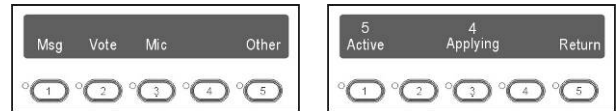


The chairman can now approve delegate's request and activate delegate's microphone by pressing key “1” or reject delegate's request by pressing key “5”.

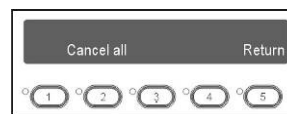
Only one delegate can request to speak at one time and a ring tone will also be emitted by the built-in loudspeaker. The chairman can use the “Priority” key to execute “All mute” or “All off” operation.

B. Turn off delegate microphone or reject delegate unit's request to speak

The initial interface of the chairman unit is shown in the following figure at the left side. Press the “Microphone” (key “3”) to go to the microphone status interface as in the following figure at the right side:

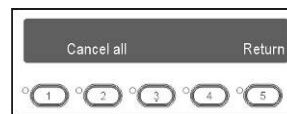


- Press “**Active**” (key “1”) to go to the active microphone control interface:



If any delegate's microphone is active, “Cancel all” (key “2”) will be available and the chairman can press this key to deactivate all active delegate's microphone.

- Press “**Applying**” (key “3”) to control the “request to speak” interface:



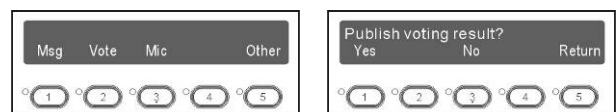
If connected to the PC, “Cancel all” (key “2”) will be available and the chairman can press this key to reject all requests (refer to application software user's manual).

4. Voting

A. Without PC

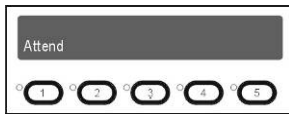
HCS-4380SC/50 chairman unit can originate voting without a PC:

- a. In the initial interface of the chairman unit, press “Vote” (key “2”) to go to the voting control interface as shown in the following figure:

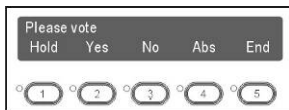


- b. If “Yes” is selected, the voting results will be displayed on the LCDs of all congress units; if “No” is selected, the voting results will be displayed only on the LCD of the chairman unit. After selection, the

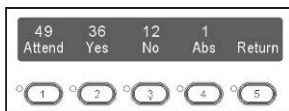
sign-in indicating light of all congress units will blink.
The delegates can press the sign-in key to sign-in.
After sign-in, the voting indicating lights will blink, the
delegate is now enabled to vote:



- c. Only 3 keys voting can be executed in case of a chairman unit originated voting (“Yes/No/Abstain”) and only “Last key-press valid” is available. The chairman can pause/end voting:



- d. The chairman presses “End” key to finish voting. The voting indicating light of all congress units will be deactivated. The voting results and sign-in statistics will be displayed on the chairman unit:

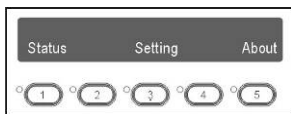


B. Connected to PC

- When controlled by the application software, nominative or ballot voting are available;
- “First key-press valid” or “Last key-press valid” are available;
- The voting can be controlled by application software. The voting operation of the chairman unit and the delegate unit are identical. In this mode, the voting can also be controlled by the chairman unit. The “Start voting” indicating light on the chairman unit will blink. Voting starts once the chairman pressed the “Start voting” key.

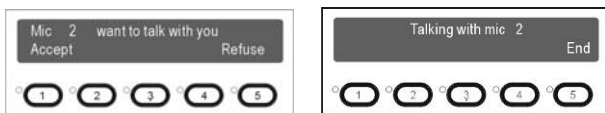
3.3.4.3 Operator unit

The Operator unit is a dedicated unit used by an operator to control the intercom function. Its initial interface is shown in the following figure:



■ Intercom function

When a contribution unit requests for intercom, the following interface at the left side will prompt. The operator can accept his/her the request and the following interface at the right side will be shown:

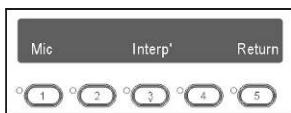


The request is accepted by pressing key “1”. The corresponding interface is displayed at the right. The request is refused by pressing key “5”.

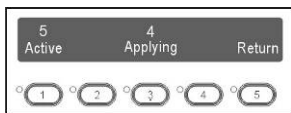
■ Other operation

A. “Status” (key “1”)

Press “Status” (key “1”) to display the microphone and Interpretation information, the following interface will be shown:



- Press “**Mic**” (key “1”) to display the microphone information, including: active microphone number (including chairman, delegate and VIP), request amount:

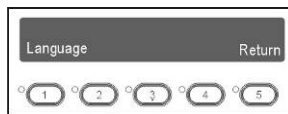


- Press “**Interpretation**” (key “3”) to run through the information on all interpretation languages:



B. “Setting” (key “3”)

Press “Setting” (key “3”), and the following interface appears:

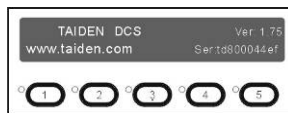


- Press “**Language**” (key “1”) to select the LCD display language between several languages. The range is limited by the configuration in the CMU (refer to section 2.4);



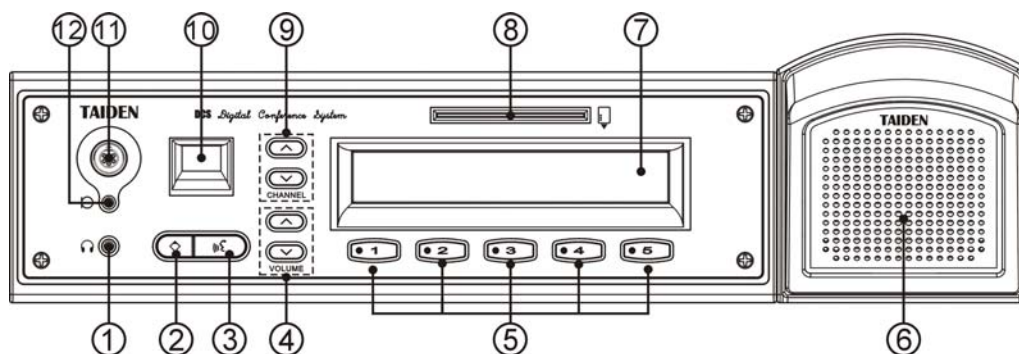
C. “About” (key “5”)

Press “About” (key “5”) to display product information:

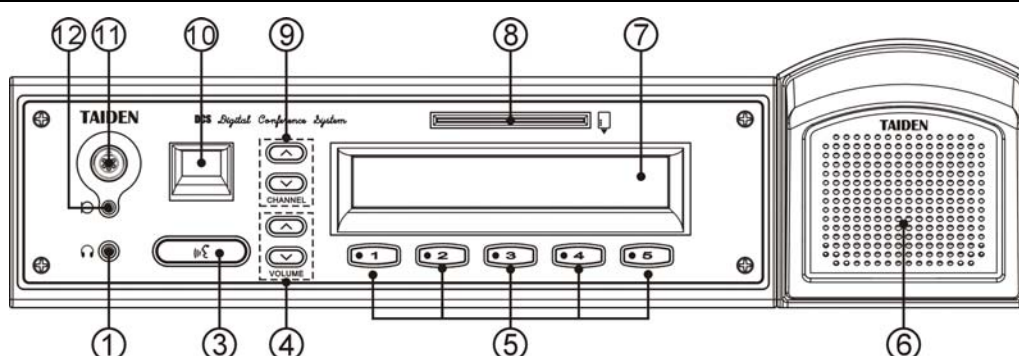


3.4 HCS-4365/66 (Q-) series congress unit

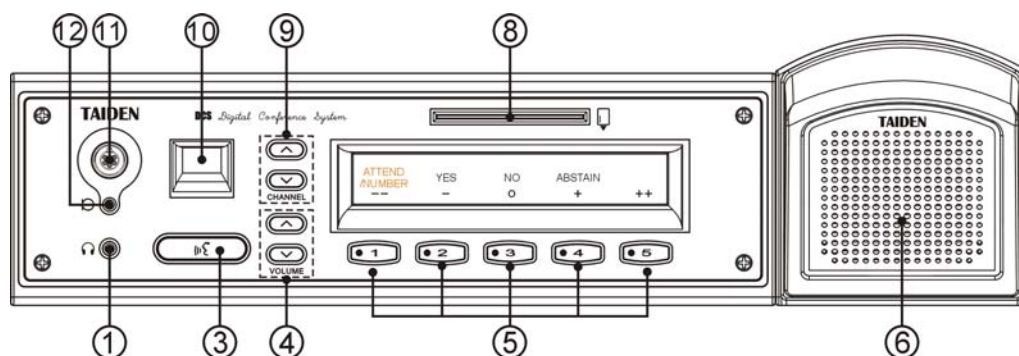
3.4.1 Functions and indications



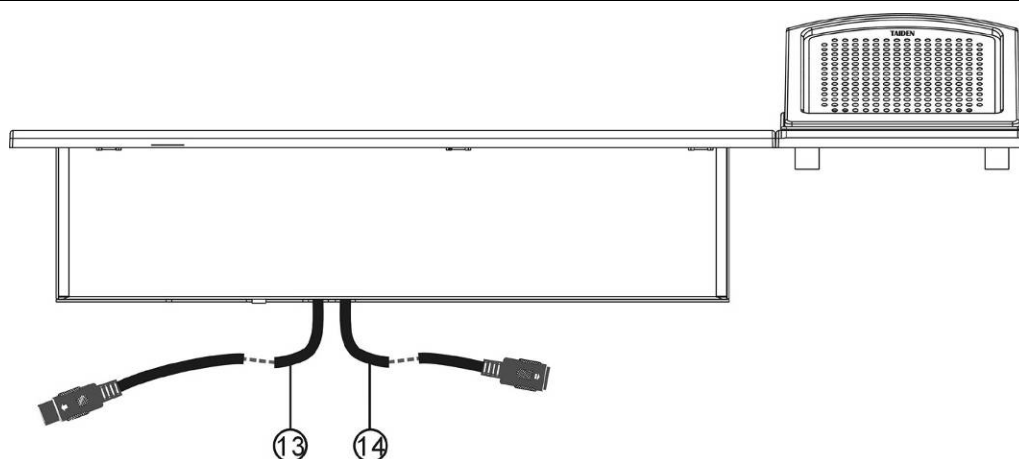
HCS-4365C/50 chairman unit



HCS-4365D/50 delegate unit



HCS-4366DE/50 delegate unit



Front view

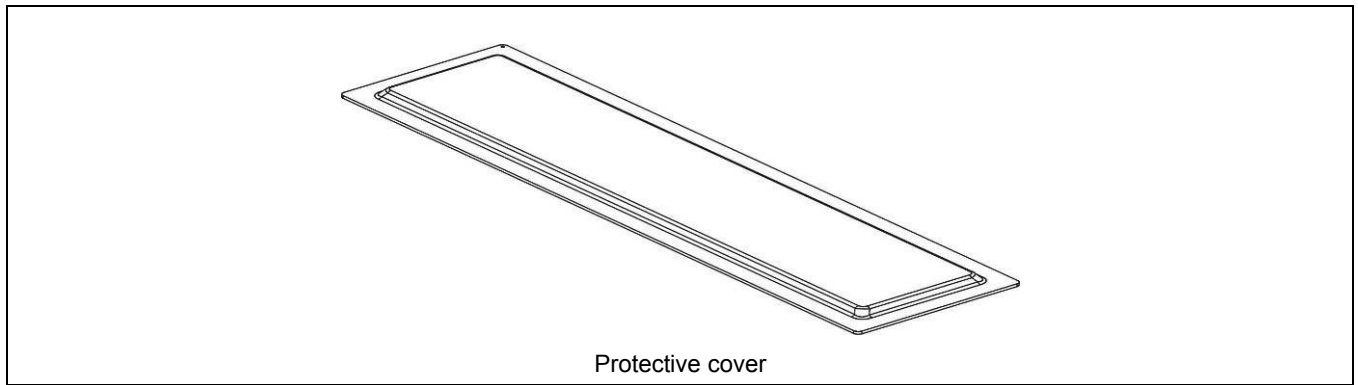


Figure 3.13 Q-series discussion units

3.4.1.1 Front

1. Earphone jack (Ø 3.5 mm)

2. Priority key with indicating light (for the chairman unit only):

- ◆ According to the priority mode configuration on the main unit:
 - ◇ If configured as “All mute”, all active delegate and VIP microphones will be muted temporarily when this key is pressed and they will resume when the key is released;
 - ◇ If configured as “All off”, all active delegate microphones will be switched off when this key is pressed. All active VIP microphones will be muted temporarily and will resume when the key is released.
- ◆ Under “OPEN” and “Apply” mode, pressing this key will clear the request list (deny all delegates’ requests to speak);
- ◆ If the chairman microphone is not active, pressing this key will activate it;
- ◆ If the ring tone mode is configured as “ON”, a ring tone will be produced when this key is pressed, and the indicating light of the priority key will be turned on.

3. Microphone On/Off key with indicating light (for the chairman unit)

Microphone/request key with indicating light (for the delegate unit):

- ◆ Chairman unit: press this key to activate the microphone and the indicating light;
- ◆ Delegate unit:
 - a. Under “OVERRIDE” mode, press this key to activate/deactivate the microphone and the indicating light;

b. Under “OPEN” mode,

- When the number of active microphones does not reach the limitation, press this key to activate/deactivate the microphone. When the microphone is activated, the microphone On/Off button indicating light and the microphone lamp ring will change to red.
- When the number of active microphones reaches the limitation, press this key to request/cancel the request to speak. When requesting to speak, the microphone On/Off button indicating light will blink in red, and the microphone lamp ring will change to blue;

c. Under “VOICE” mode,

- When not speaking, the microphone On/Off button indicating light remains red;
- When speaking, the microphone On/Off button indicating light and the microphone lamp ring remain red;

d. Under “APPLY” mode,

- When the number of active microphones does not reach the limitation, press this key to request/cancel the request to speak and the indicating light will blink when on “request”. The speaking request is approved or rejected by the chairman unit with control facility, only one delegate unit can request at the same time;
- When the number of active microphones reaches the limitation, none other delegate unit can request to speak, the speaking request is available once one of the activated microphones is switched off.

e. Under "PTT" mode,

- If the maximal number of active microphones is not reached, pressing and holding this key will activate the microphone, and the indicating light will be turned on; releasing the key after speech will turn off the microphone.
- If the maximal number of active microphones has been reached, pressing this key cannot activate the microphone until one of the activated microphones is switched off.

(Refer to section 3.4.4 for details)

4. Earphone volume control

5. Multi functional keys with indicating light (5 keys):

◆ Start/Stop/Sign-in/Number/Option1/Response-- Key ("ATTEND/NUMBER/1/--")

- a) In key-press sign-in mode, the sign-in indicating light will blink, press this key to sign-in;
- b) In voting mode (Multiple choice/Opinion poll), the voting indicating light will blink, press this key to vote for option 1;
- c) In voting mode (Audience response/Rating), the voting indicating light will blink, press this key to vote for 0 ("- -");
- d) Chairman unit: if the system is connected to a PC and if application software is setup for voting control mode by chairman control, key "5" will blink when clicking the "Start voting" button in the voting interface of the application software. The chairman can press this key to enter the voting status. Once the chairman voted, the indicating light will blink again. After confirmation that all delegates voted, the chairman pushes key "5" to close voting. Application software will calculate the voting results.

◆ Yes/Option 2/Response - Key ("YES/2/-")

- a) In voting mode (Parliamentary), the voting indicating light will blink, press this key to vote for "Yes";
- b) In voting mode (Multiple choice/Opinion poll), the voting indicating light will blink, press this key to vote for option 2;
- c) In voting mode (Audience response/Rating), the voting indicating light will blink, press this key to vote for 25 ("-").

◆ No/Option 3/Response 0 Key ("NO/3/0")

- a) In voting mode (Parliamentary), the voting indicating light will blink, press this key to vote for "No";
- b) In voting mode (Multiple choice/Opinion poll), the voting indicating light will blink, press this key to vote for option 3;
- c) In voting mode (Audience response/Rating), the voting indicating light will blink, press this key to vote for 50 ("0")

◆ Abstain/Option 4/Response + Key ("ABSTAIN/4/+")

- a) In voting mode (Parliamentary), the voting indicating light will blink, press this key to vote for "Abstain";
- b) In voting mode (Multiple choice/Opinion poll), the voting indicating light will blink, press this key to vote for option 4;
- c) In voting mode (Audience response/Rating), the voting indicating light will blink, press this key to vote for 75 ("+").

◆ Option 5/Response ++ Key ("5/++")

- a) In voting mode (Multiple choice/Opinion poll), the voting indicating light will blink, press this key to vote for option 5;
 - b) In voting mode (Audience response/Rating), the voting indicating light will blink, press this key to vote for 100 ("++");
- ◆ For the Q series chairman unit (with 256×32 LCD) not connected to a PC, press key "2" to start voting. Once the chairman finished his vote and confirmed that all delegates have voted, he selects key "5" to close voting. The voting results will be displayed on the LCD.
 - ◆ For this series discussion unit (with 256×32 LCD), these five keys act as functional keys for menu operation (refer to section 3.4.4.1 for details).

6. Built-in Hi-Fi loudspeaker

- ◆ Mutes automatically to suppress howling when the microphone of the unit is active or when the earphone is inserted.
- ◆ Loudspeaker sends out floor channel audio only. The volume is controlled via the CMU or the application software.

7. High light 256 x 32 graphic LCD

- ◆ Can display menu and information in several languages (Simplified Chinese, Traditional Chinese, English, etc.)

8. IC card socket

9. Simultaneous interpretation channel selector

- ♦ Available when the earphone is plugged

10. Simultaneous interpretation channel number display

11. Microphone socket

12. Microphone jack (Ø 3.5 mm)

3.4.1.2 Bottom

13. 1.5-meter 6P-DIN cable with standard plug (male x 1)

14. 0.6-meter 6P-DIN cable with standard plug (female x 1)

3.4.2 Installation

3.4.2.1 Installation of Q-series discussion unit

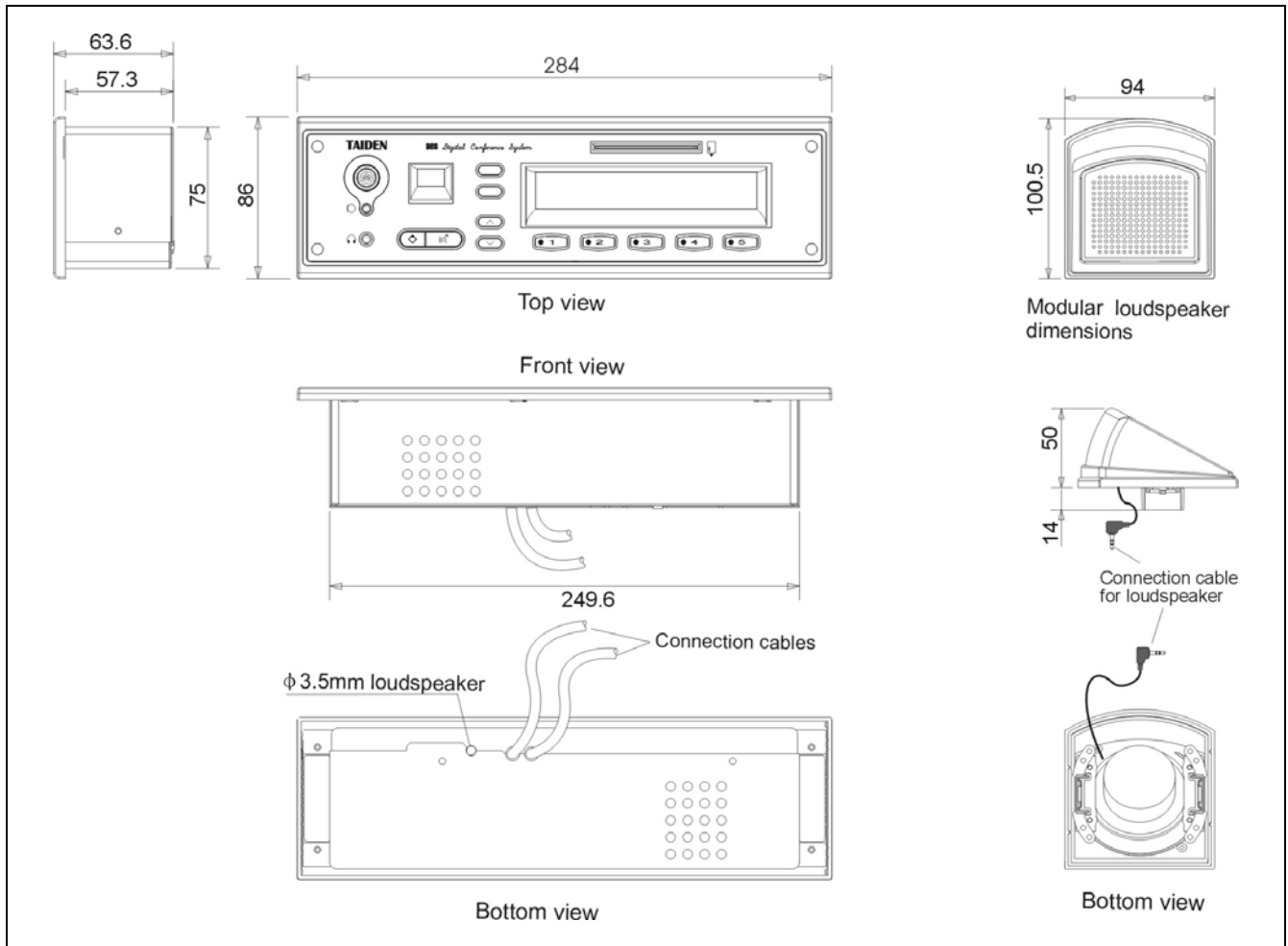


Figure 3.14 Dimensional diagram of Q-series discussion unit (unit: mm)

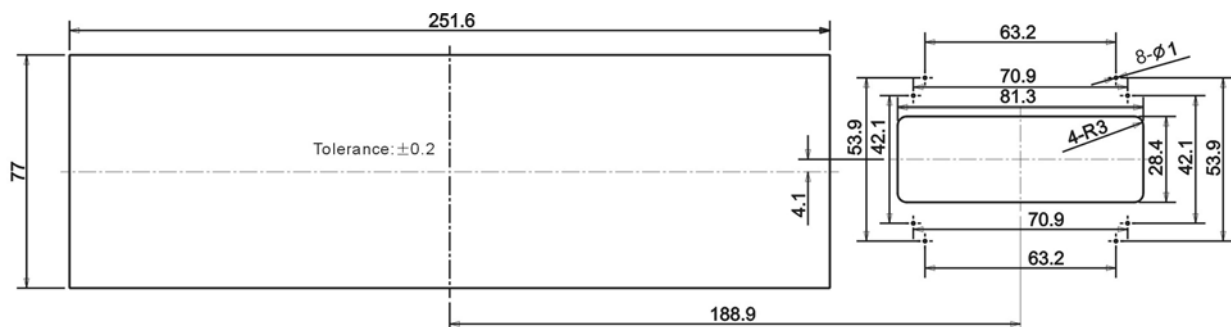


Figure 3.15 Dimensional diagram of installing discussion unit and loudspeaker (unit:mm)

Steps:

- Make holes in the table according to the dimensions in figure 3.15;
- Fix the fixing iron plates with screws according to the holes in figure 3.16, and hook up the loudspeaker onto the fixed iron plates;
- According to the relative position of discussion unit and the loudspeaker (figure 3.17), fix the discussion unit with screws;
- Plug the cable into the jack at the bottom of the unit.

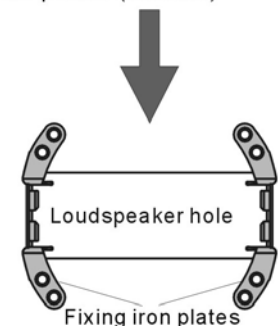


Figure 3.16 Position of fixing iron plates for loudspeaker

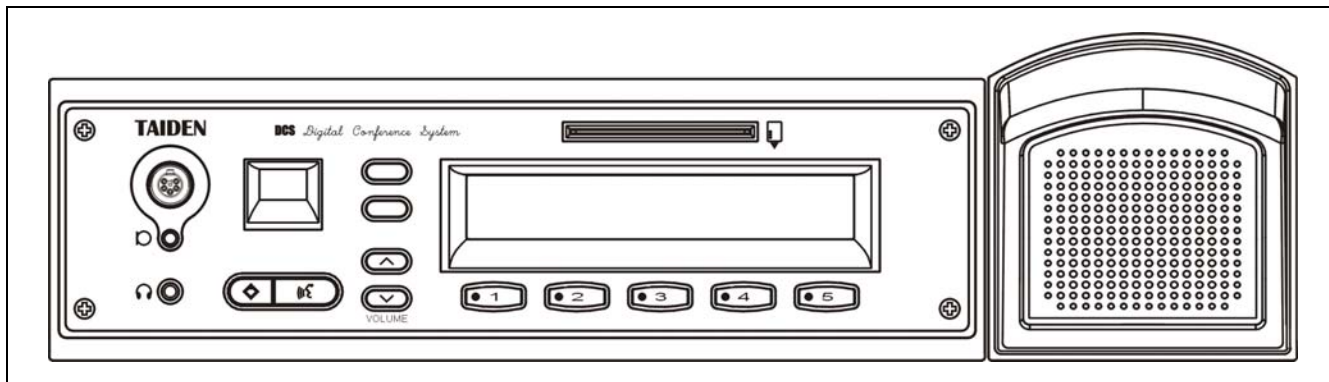


Figure 3.17 Position of discussion unit and loudspeaker

3.4.2.2 Installation of the protective cover of the Q-series discussion unit

If not in use for a long time, just pull out the microphone and hook up the magnetic protective cover:

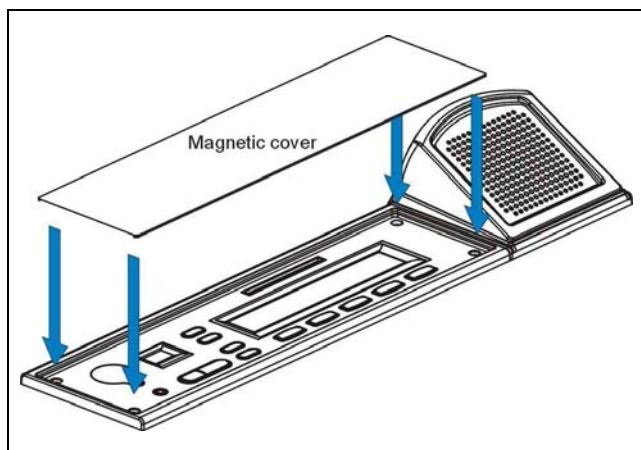


Figure 3.18 Installation diagram of the protective cover of Q-series discussion unit

3.4.2.3 Dismounting the protective cover of Q-series discussion unit

A vacuum cup is needed to dismount the protective cover. Seize the protective cover with the vacuum cup and pull it from the discussion unit.

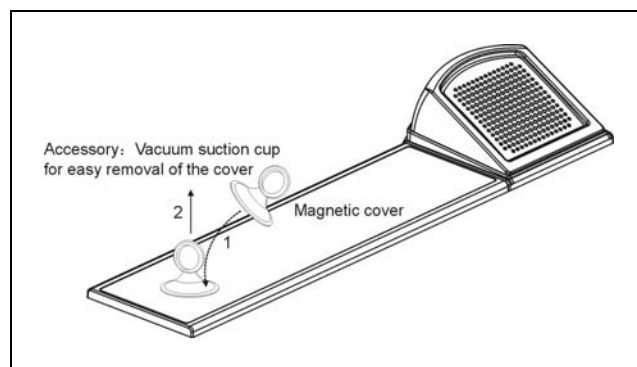


Figure 3.19 Dismounting the protective cover of Q-series discussion unit

3.4.3 Connection

3.4.3.1 Connecting to the CMU or the EMU

The Q-series discussion unit is equipped with a 1.5-meter long 6P-DIN cable with a standard male connector. To connect to the HCS-4100/50 CMU or the HCS-8300 EMU, just connect the male connector of the first unit to the output of the main unit.

If there is a long distance between the congress unit and the CMU (EMU), CBL6PS extension cable can be used. One end is equipped with a 6P-DIN male connector and the opposite end with a female connector. Just connect the female connector of the cable to the next congress unit, and connect the male connector to the output of the main unit.

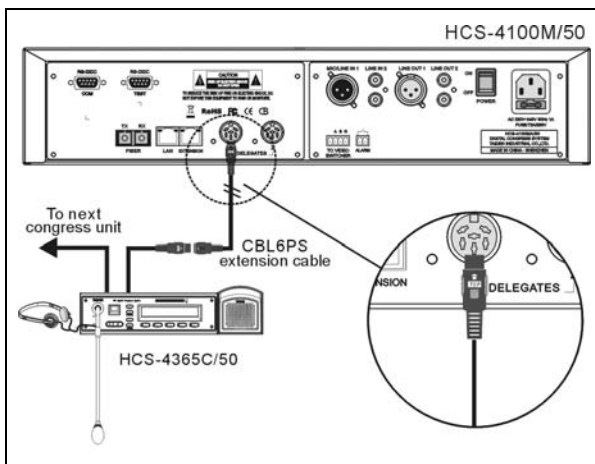


Figure 3.20 Q-series discussion unit connected to the CMU or the EMU

Neither the replacement of congress units nor cable faults between congress units will affect the other units if “daisy-chain closed-loop” connection topology is selected. Ring connection, achieved by closing the loop of the daisy-chained units, increases system reliability. To obtain “daisy-chain” ring connection, just connect the last congress unit back to the CMU or the EMU with a CBL6PP extension cable (the cable features a 6P-DIN male connector at each end).

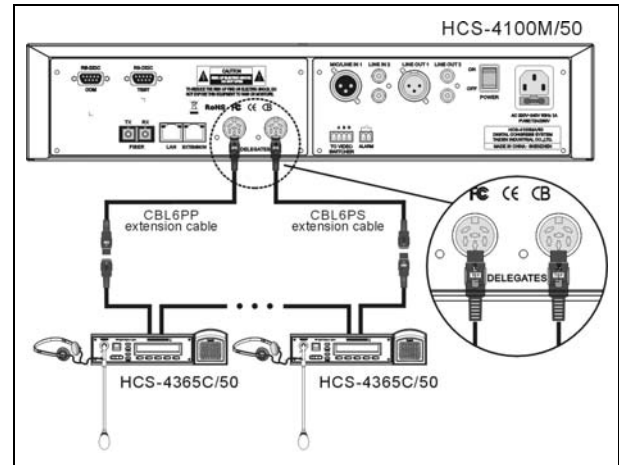


Figure 3.21 Ring connection between the CMU and Q-series discussion units

3.4.3.2 Connection between congress units

All congress units of HCS-4100/50 FDGS are daisy-chained easily and conveniently by dedicated 6P-DIN cables.

When connecting to another congress unit, just connect the 6P-DIN standard female connector on the 0.6-meter cable of the unit to the 6P-DIN standard male connector on the 1.5-meter cable of the next unit.

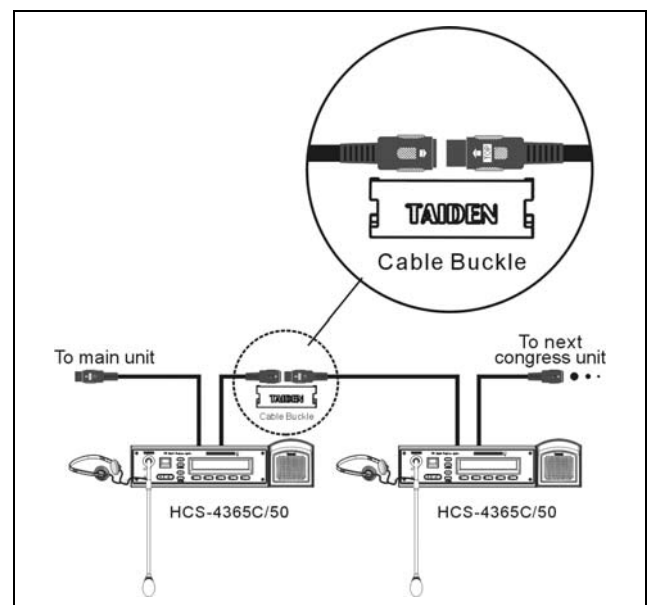
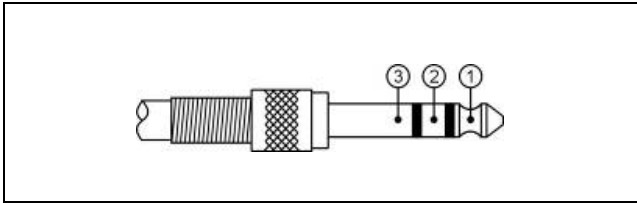


Figure 3.22 “Daisy-chain” connection between Q-series discussion units

3.4.3.3 External microphone

An external microphone can be connected to the external microphone jack at the lateral side of the congress unit. The external microphone shall have a Ø 3.5 mm plug, as in the following figure:

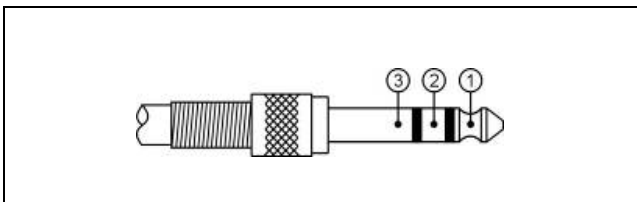


Functions and indications:

- 1.....Signal+
- 2.....Suspend/Ground
- 3.....Ground

3.4.3.4 External earphone

An external earphone can be connected to the external earphone jack at the top of the congress unit. Its volume can be adjusted by the earphone volume control button. The external earphone shall have a Ø 3.5 mm plug, as in the following figure:



Functions and indications:

- 1.....Left stereo channel signal
- 2.....right stereo channel signal
- 3.....Power ground/Shield

3.4.4 Operation

Before a meeting starts, the congress units need to be configured by the operator, including: numbering and testing. During the meeting, the participants use the congress unit to sign-in, activate microphone, request to speak, vote, read message, etc.

3.4.4.1 Delegate unit

We take HCS-4365D/50 as an example to introduce the operation of the Q-series discussion units. The operation of HCS-4366D/50 is identical to HCS-4365D/50 except that HCS-4366D/50 does not have a LCD.

1. Number

First of all, make sure that the congress units are connected properly to the CMU. All congress units must be numbered when the system is used for the first time or when adding or replacing congress units. The numbering function can be activated by menu operation on the CMU front panel or by application software.

Select "Number" by menu operation from the CMU, press the "MENU" key to confirm, following the system goes to numbering status. *"Press '1' key of all congress units one by one and repower"* will be displayed on the CMU LCD. The number indicating light of all connected congress units will blink. All congress units with a LCD will display "Numbering". Press key "1" of all congress units one by one. The number indicating light will be deactivated. Once all congress units numbered, restart the CMU to update the number information.

Note:

☞ When numbering, please number the conference units one by one and do NOT press "number" key of several conference units at the same time.

2. Sign-in (application software needed)

To carry out voting, discussion units with voting and IC-Card reader and voting units should be registered via key press or IC-card. With application software, registration is available by choosing "Seat Sign-in".

■ Key-press sign-in

In key-press sign-in status, the indicating light on key "1" will blink, press key "1" to sign-in and the indicating light will be turned off.

■ IC card sign-in

▪ Congress unit with LCD

In IC card sign-in status, "Please insert IC card" will be displayed on the LCD. Insert the IC card correctly, a welcome interface will be displayed. Press any key to go to the initial interface. If the IC card is invalid or inserted incorrectly, "Invalid IC card" will be displayed on the LCD. Please insert the IC card correctly or contact the technical support.

▪ Congress unit without LCD

In IC card sign-in status, "Cd" will be displayed on the SI channel display. Insert the IC card correctly, the channel number "00" will be displayed. If the IC card is invalid or inserted incorrectly, "Er" will be displayed on the SI channel display. Please insert the IC card correctly or contact the technical support.

3. Speaking

Speaking mode is configured on the CMU. (refer to section 2.4)

A. "Open" mode

■ Active microphone number limitation (1/2/3/4) **NOT reached:**

- The microphone On/Off key indicating light and the microphone illuminated light ring (red) will be activated at the same time as the microphone On/Off key is pressed. The speaker can give his/her speech, the built-in loudspeaker is muted;
- The microphone will be deactivated when the microphone On/Off key is pressed again. The microphone On/Off key indicating light and the microphone illuminated light ring will be deactivated. The built-in loudspeaker will be activated, presumed the earphone is not plugged. If the earphone is plugged, the built-in loudspeaker will be deactivated.

■ Active microphone number limitation (1/2/3/4)

reached:

- a. The microphone On/Off key indicating light will blink and the microphone illuminated light ring (blue) will be activated when the key is pressed to request to speak;
- b. Press this key again to cancel the request to speak;
- c. When an active microphone is turned off, the first request microphone will be activated. At most 6 microphones can request to speak.

B. “Override” mode

■ Active microphone number limitation (1/2/3/4) **NOT reached:**

- a. The microphone On/Off key indicating light and the microphone illuminated light ring (red) will be activated at the same time as the microphone On/Off key is pressed. The speaker can give his/her speech, the built-in loudspeaker is muted;
- b. The microphone will be deactivated when the microphone On/Off key is pressed again. The microphone On/Off key indicating light and the microphone illuminated light ring will be deactivated. The built-in loudspeaker will be activated, presumed the earphone is not plugged. If the earphone is plugged, the built-in loudspeaker will be deactivated.

■ Active microphone number limitation (1/2/3/4) **reached:**

If the microphone On/Off key is pressed, its microphone will be activated and the first activated microphone will be deactivated at the same time to maintain the active microphone number limitation.

C. “Voice” mode

■ Active microphone number limitation (1/2/3/4) **NOT reached:**

- a. The microphone On/Off key indicating light remains on. When the delegate speaks into the microphone at a short distance, the microphone will be activated. The microphone illuminated light ring will be activated, and the built-in loudspeaker will be deactivated automatically;

b. If the delegate does not speak for several seconds, the microphone will be deactivated automatically and the built-in loudspeaker will be activated. The interval time can be adjusted at the main unit (refer to section 2.4);

- c. When the microphone is activated, pressing the microphone On/Off key turns it off.

■ Active microphone number limitation (1/2/3/4) **reached:**

All other microphones cannot be activated unless one of the active microphones is turned off.

D. “Apply” mode

- a. Request to speak function: when the microphone On/Off key is pressed, a ring tone will be produced (the ring mode has been configured as “ON”). The microphone illuminated light ring (blue) will be activated. The chairman unit can approve or reject his/her request;
- b. When his/her request is approved, the microphone illuminated light ring will turn red, he/she can speak. Only one delegate is enabled to speak;
- c. When the active microphone number limitation is reached, none other delegate can request unless one of the active microphones is turned off.

E. “PTT” mode

■ Active microphone number limitation (1/2/3/4) **NOT reached:**

- a. Press and hold the microphone On/Off button to activate the microphone, the microphone active indicating light and the microphone On/Off button indicating light will turn red. The speaker can give his/her speech, the built-in loudspeaker will be muted;
- b. The microphone will be deactivated when this button is released. The microphone active indicating light and the microphone On/Off button indicating light will be deactivated. The built-in loudspeaker will be activated, presumed the earphone is not plugged. If the earphone is plugged, the built-in loudspeaker will be deactivated.

- Active microphone number limitation (1/2/3/4) **reached:**

Pressing this key cannot activate the microphone until one of the activated microphones is switched off.

The speaking mode as well as the active microphone number limitation can be configured at the main unit. The chairman unit and the VIP unit do not count in the active microphone number limitation. At most 6 microphones can be activated at the same time in a system. VIP units can be assigned by application software - at most 32 VIP units.

A camera can focus an activated microphone automatically (camera position preset by application software). Speaker's video can be exported to and displayed on large screen(s).

4. Voting

The voting can be originated by the chairman unit (only for 3 keys voting), or by the HCS-4100/50 application software.

- The voting button indicating lights of the congress unit start to blink, the delegate can press voting button to vote;
- For "First key-press valid" voting, the delegate can vote only once, and his/her voting indicating lights will be deactivated and his/her voted item will be highlighted on the LCD after his/her voting;
- For "Last key-press valid" voting, the delegate can change his/her vote. When the delegate voted, the indicating light of his voted key will be activated and all other indicating lights will be deactivated and his/her voted item will be highlighted on the LCD. About 1 second later, all indicating lights will blink again, and the delegate can change his/her vote. His/her last voted key will be valid.
- The voting originated by the chairman unit only supports "Last key-press valid".

5. Channel select

- When the CMU is connected to interpretation unit(s), simultaneous interpretation function will work and the channel selector will be activated. To use the channel selector, an earphone must be plugged in. When the earphone is plugged, the

backlight of the channel select display lights up. The delegate can select a suitable language to listen to by means of the channel selector.

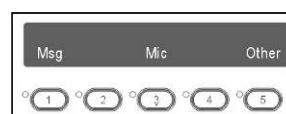
- When the earphone is pulled out, the backlight of the channel select display will extinguish and the built-in loudspeaker will switch to floor audio channel.

6. Volume control

- The volume of the built-in loudspeaker can be adjusted by the master volume control knob on the main unit;
- When the earphone is plugged, its volume can be adjusted by the earphone volume control at the top of the unit.
The built-in loudspeaker will be deactivated.

7. LCD display (HCS-4366D/50 does not have this function)

After initialization, the following interface will be displayed on the LCD:

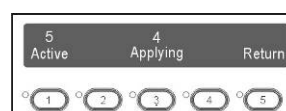


A. "Message" (key "1")

- Use this key to read a message. When a PC is connected, the operator can edit and send a message to the congress unit(s).
- On receipt of a message, a ring tone will be emitted by the built-in loudspeaker and "You have got a new message" will be displayed on its LCD and the indicating light of key "5" will blink. Press key "5" to read the corresponding message.
- At most 4 messages can be stored in the congress unit. In case of more incoming messages; the first received message will be overlapped.

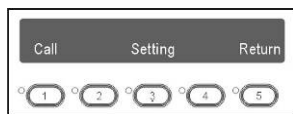
B. "Microphone" (key "3")

Use this key to display microphone information, including: active microphone number (including chairman, delegate and VIP), request amount:



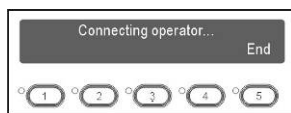
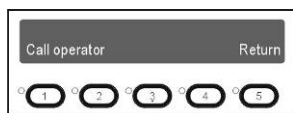
C. “Other” (key “5”)

Use this key to request intercom, setup LCD display language and system information:



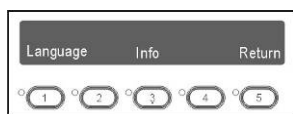
■ “Call”

The earphone shall be plugged to use the intercom function. If not, it will remind you to plug the earphone. If the current unit is using the intercom function, it will remind you that the line is busy. Press “Call” (key “1”) to use the intercom function, and the following interface at the left side is shown. When the operator approved your request, then the following interface at the right side is shown:



■ “Setting”

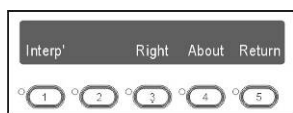
Press “Setting” (key “3”), and the following interface is shown:



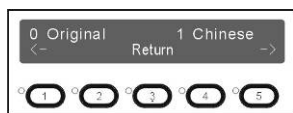
- Press “**Language**” (key “1”) to select the LCD display language between several languages. The range is limited by the configuration in the CMU (refer to section 2.4);



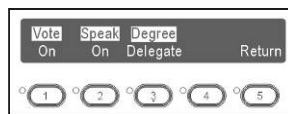
- Press “**Info**” (key “3”), and the following interface is shown:



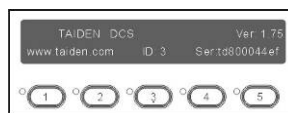
- Press “**Interpretation**” (key “1”) to run through information about all interpretation languages:



- Press “**Right**” (key “3”) to check the rights of this unit:



- Press “**About**” (key “4”) to display product information:



8. VIP unit

- Any delegate unit can be assigned as VIP unit by HCS-4100/50 application software. At most 32 VIP units can be assigned;
- As long as the active microphone number does not exceed 6 (including chairman/delegate/VIP), the microphone of the VIP unit can be activated freely;
- If the priority mode is configured as “All off”, all active delegate microphones will be turned off when the chairman presses his priority key, and all active VIP microphones will just be muted temporarily. They will restore when the chairman releases his priority key;
- If the active microphone number reached 6, the microphone illuminated light ring (blue) will be activated and the microphone On/Off key indicating light will blink when the microphone On/Off key is pressed. The microphone cannot be turned on unless one of the active microphones is deactivated.

3.4.4.2 Chairman unit

The chairman features the functions of a delegate unit, and the following additional functions:

1. Priority

- If the priority mode on the main unit is configured as “All mute”, all active delegate and VIP microphones will be muted temporarily when this key is pressed and they will restore when this key is released;
- If configured as “All off”, all active delegate microphones will be turned off and the request-to-speak list will be purged (in “Open” mode and “Apply” mode) when this key is pressed. All active VIP microphones will be muted temporarily when this key is pressed. They will restore when this key is released.

2. Speaking

- If the number of active microphones in the system is less than 6 (including chairman /delegate /VIP), the chairman can activate his/her microphone normally, the operation is the same as for the delegate unit (refer to section 3.4.4.1).
- If the number of active microphones in the system is 6, the chairman cannot activate his/her microphone. But he/she can use the “Priority” key to “All mute” or “All off” other microphones and give his/her speech.

3. Controlling delegate unit

A. Approve delegate unit's request to speak

Under “Apply” mode, when a delegate requests to speak, a ring tone will be emitted by the built-in loudspeaker in the chairman's unit.

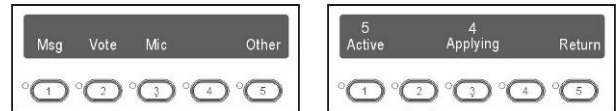


The chairman can now approve delegate's request and activate delegate's microphone by pressing key “1” or reject delegate's request by pressing key “5”.

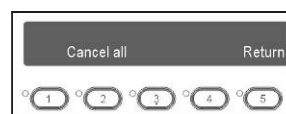
Only one delegate can request to speak at one time and a ring tone will also be emitted by the built-in loudspeaker. The chairman can use the “Priority” key to execute “All mute” or “All off” operation.

B. Turn off delegate microphone or reject delegate unit's request to speak

The initial interface of the chairman unit is shown in the following figure at the left side. Press “Microphone” (key “3”) to go to the microphone status interface as in the following figure at the right side:

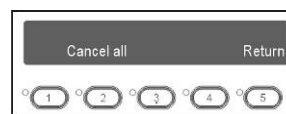


- Press “Active” (key “1”) to go to the active microphone control interface:



If any delegate's microphone is active, “Cancel all” (key “2”) will be available and the chairman can press this key to deactivate all active delegate's microphone.

- Press “Applying” (key “3”) to go to control the “request to speak” interface:



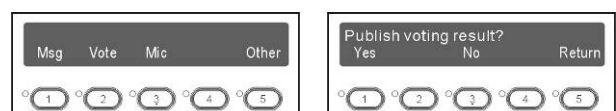
If connected to a PC, “Cancel all” (key “2”) will be available and the chairman can press this key to reject all requests (refer to application software user's manual).

4. Voting

A. Without PC

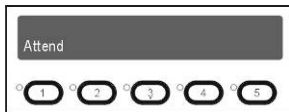
The HCS-4365C/50 chairman unit can originate voting without a PC:

- a. In the initial interface of the chairman unit, press “Vote” (key “2”) to go to the voting control interface as in the following figure:

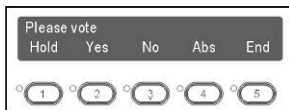


- b. If “Yes” is selected, the voting results will be displayed on the LCDs of all congress units; if “No” is selected, the voting results will be displayed only on the LCD of the chairman unit. After selection, the

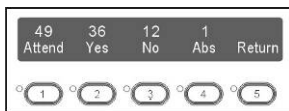
sign-in indicating light of all congress units will blink.
The delegates can press the sign-in key to sign-in.
After sign-in, the voting indicating lights will blink, the delegate is now enabled to vote:



- c. Only 3 keys voting can be executed in case of a chairman unit originated voting (“Yes/No/Abstain”) and only “Last key-press valid” is available. The chairman can pause/end voting:



- d. The chairman presses “End” key to finish voting. The voting indicating light of all congress units will be deactivated. The voting results and sign-in statistics will be displayed on the chairman unit:



B. Connected to PC

- When controlled by application software, nominative or ballot voting are available;
- “First key-press valid” or “Last key-press valid” are available;
- Voting can be controlled by application software. The voting operation of the chairman unit and the delegate unit are identical. In this mode, the voting can also be controlled by the chairman unit. The “Start voting” indicating light on the chairman unit will blink. Voting starts once the chairman pressed the “Start voting” key.

3.5 HCS-4360/61/62/63 (M-) series congress unit

3.5.1 Functions and indications

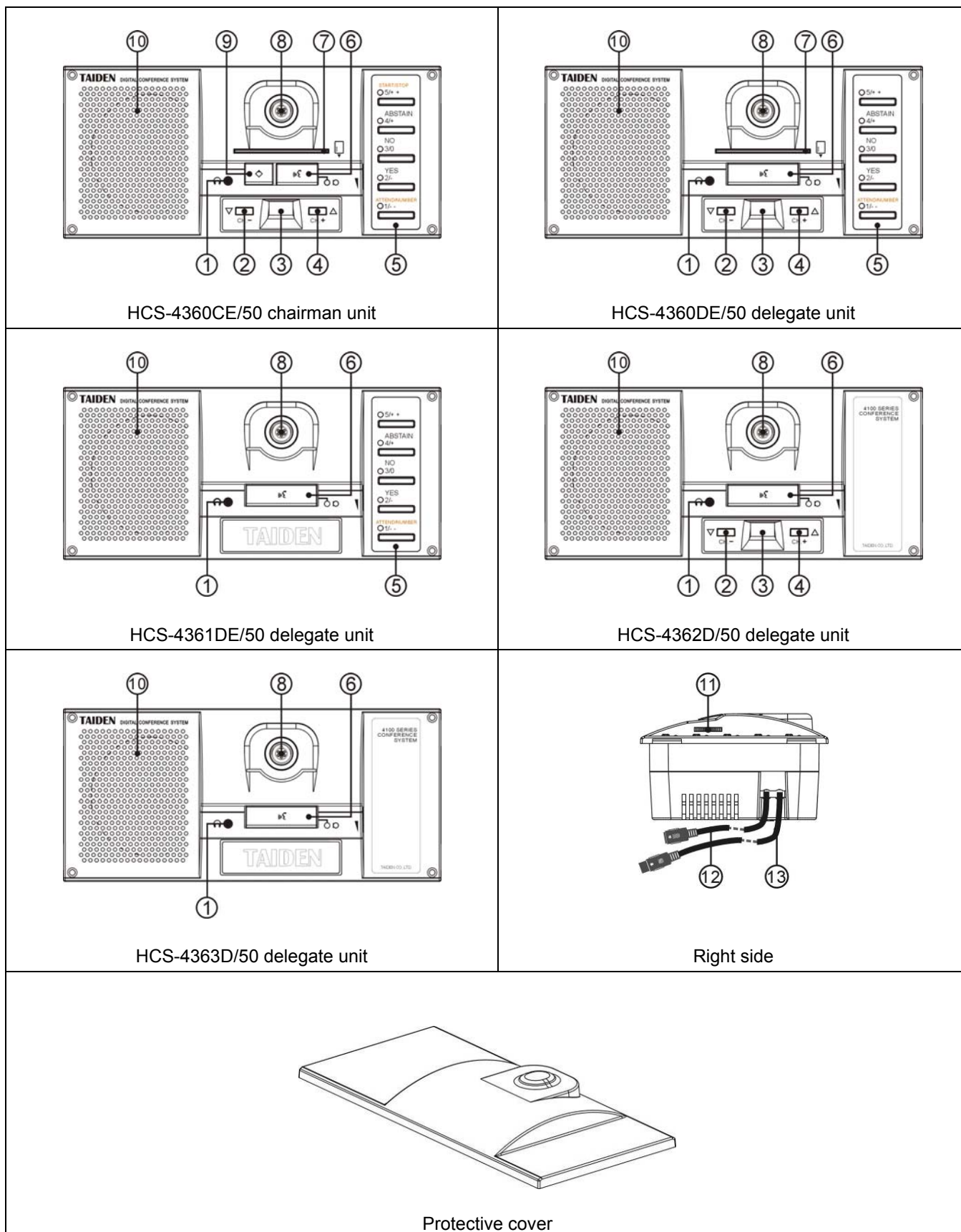


Figure 3.23 M-series discussion units

3.5.1.1 Front

1. Earphone jack (Ø 3.5 mm)

2. Simultaneous interpretation channel - selector

- ♦ Available when the earphone is plugged

3. Simultaneous interpretation channel number display

4. Simultaneous interpretation channel + selector

- ♦ Available when the earphone is plugged

5. 5 voting keys with indicating light:

- ♦ Sign-in/Number/Option1/Response--Key ("ATTEND/NUMBER/1/--")

- In key-press sign-in mode, the sign-in indicating light will blink, press this key to sign-in;
- In voting mode (Multiple choice/Opinion poll), the voting indicating light will blink, press this key to vote for option 1;
- In voting mode (Audience response/Rating), the voting indicating light will blink, press this key to vote for 0 ("-").

- ♦ Yes/Option 2/Response - Key ("YES/2/-")

- In voting mode (Parliamentary), the voting indicating light will blink, press this key to vote for "Yes";
- In voting mode (Multiple choice/Opinion poll), the voting indicating light will blink, press this key to vote for option 2;
- In voting mode (Audience response/Rating), the voting indicating light will blink, press this key to vote for 25 ("-").

- ♦ No/Option 3/Response 0 Key ("NO/3/0")

- In voting mode (Parliamentary), the voting indicating light will blink, press this key to vote for "No";
- In voting mode (Multiple choice/Opinion poll), the voting indicating light will blink, press this key to vote for option 3;
- In voting mode (Audience response/Rating), the voting indicating light will blink, press this key to vote for 50 ("0")

- ♦ Abstain/Option 4/Response + Key ("ABSTAIN/4/+")

- In voting mode (Parliamentary), the voting indicating light will blink, press this key to vote for "Abstain";
- In voting mode (Multiple choice/Opinion poll), the voting indicating light will blink, press this key to vote for option 4;

- In voting mode (Audience response/Rating), the voting indicating light will blink, press this key to vote for 75 ("+").

- ♦ Start/Stop/Option 5/Response ++ Key ("START/STOP/5/++")

- In voting mode (Multiple choice/Opinion poll), the voting indicating light will blink, press this key to vote for option 5;
- In voting mode (Audience response/Rating), the voting indicating light will blink, press this key to vote for 100 ("++");
- Chairman unit: if the system is connected to a PC and if application software is setup for the voting control mode by chairman control, key "5" will blink when clicking the "Start voting" button in the voting interface of the application software. The chairman can press this key to enter the voting status. Once the chairman voted, the indicating light will blink again. After confirmation that all delegates voted, the chairman pushes key "5" to close voting. Application software will calculate the voting results.

6. Microphone On/Off key with indicating light (for the chairman unit)

Microphone/request key with indicating light (for the delegate unit):

- ♦ Chairman unit: press this key to activate the microphone and the indicating light;
- ♦ Delegate unit:
 - Under "OVERRIDE" mode, press this key to activate/deactivate the microphone and the indicating light;
 - Under "OPEN" mode,
 - When the number of active microphones does not reach the limitation, press this key to activate/deactivate the microphone. When the microphone is activated, the microphone On/Off button indicating light and the microphone lamp ring will change to red.
 - When the number of active microphones reaches the limitation, press this key to request/cancel request to speak. When requesting to speak, the microphone On/Off button indicating light will blink in red, and the microphone lamp ring will change to blue;

- c. Under "VOICE" mode,
 - When not speaking, the microphone On/Off button indicating light remains red;
 - When speaking, the microphone On/Off button indicating light and the microphone lamp ring remain red;
- d. Under "APPLY" mode,
 - When the number of active microphones does not reach the limitation, press this key to request/cancel the request to speak and the indicating light will blink when on "request". The speaking request is approved or rejected by the chairman unit with control facility, only one delegate unit can request at the same time;
 - When the number of active microphones reaches the limitation, none other delegate unit can request to speak, the speaking request is available once one of the activated microphones is switched off.
- e. Under "PTT" mode,
 - If the maximal number of active microphones is not reached, pressing and holding this key will activate the microphone, and the indicating light will be turned on; releasing the key after speech will turn off the microphone.
 - If the maximal number of active microphones has been reached, pressing this key cannot activate the microphone until one of the activated microphones is switched off.

(Refer to section 3.5.4 for details)

7. IC card socket

8. Microphone socket

9. Priority key with indicating light (for the chairman unit only):

- ♦ According to the priority mode configuration on the main unit:
 - ◇ If configured as "All mute", all active delegate and VIP microphones will be muted temporarily when this key is pressed and they will resume when the key is released;
 - ◇ If configured as "All off", all active delegate microphones will be switched off when this key is pressed. All active VIP microphones will be muted temporarily and will resume when the key is released.

- ♦ Under "OPEN" and "Apply" mode, pressing this key will clear the request list (deny all delegates' requests to speak);
- ♦ If the chairman microphone is not active, pressing this key will activate it;
- ♦ If the ring tone mode is configured as "ON", a ring tone will be produced when this key is pressed, and the indicating light of the priority key will be turned on.

10. Built-in Hi-Fi loudspeaker

- ♦ Mutes automatically to suppress howling when the microphone of the unit is active or when the earphone is inserted.
- ♦ Loudspeaker sends out floor channel audio only. The volume is controlled via the CMU or the application software.

3.5.1.2 Side

11. Earphone volume control

12. 0.6-meter 6P-DIN cable with standard plug (female x 1)

13. 1.5-meter 6P-DIN cable with standard plug (male x 1)

3.5.2 Installation

3.5.2.1 Installation of M-series discussion unit

- Cut a hole in the table according to the dimensions in figure 3.24;
- Put the discussion unit into the hole and drill four $\varnothing 2$ mm holes with 10 mm depth at the positions P1 to P4 of the fixing screws;
- Run the two cables - mounted laterally on the discussion unit - according to the mounting feasibilities existing on site.
- Put the discussion unit into the hole and fix it with screws at P1, P2, P3 and P4.

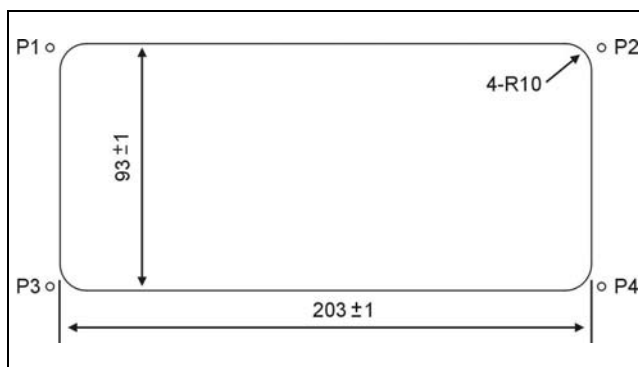


Figure 3.24 Fixing hole positioning diagram of M-series discussion unit (unit: mm)

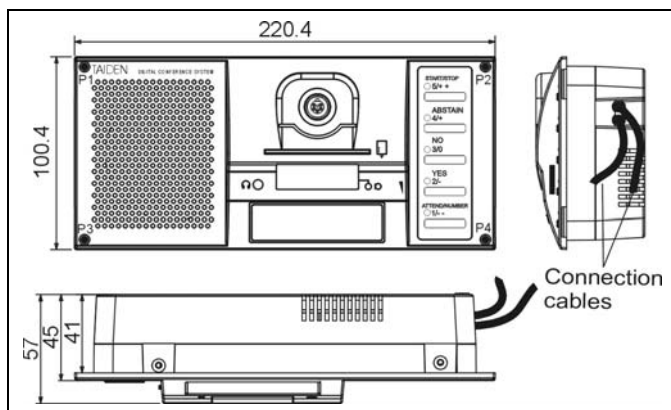


Figure 3.25 Flush-mounted installation diagram of the M-series discussion unit

3.5.2.2 Installation of the protective cover of M-series discussion unit

If not in use for a long time, just pull out the microphone and put on the protective cover:

- Hook up the protective cover on the left side;
- Then press the protective cover tightly on the right side.

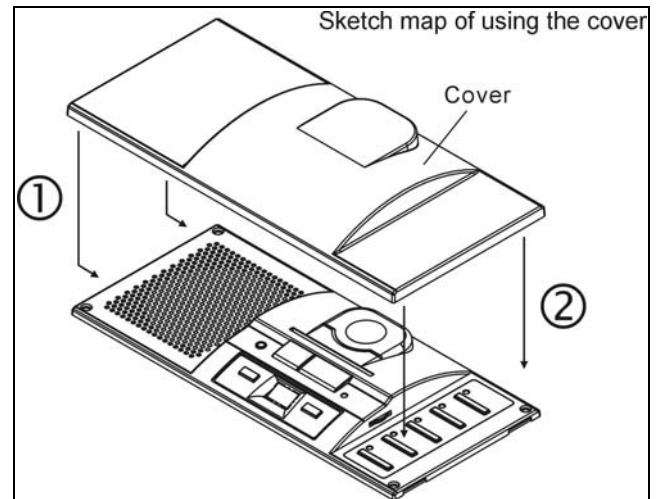


Figure 3.26 Installation diagram of the protective cover of M-series discussion unit

3.5.2.3 Dismounting the protective cover of the M-series discussion unit

- Prepare a straight screwdriver;
- Insert the straight screwdriver into the gap at the right lower side of the protective cover and rotate the screwdriver by 90 degrees, the protective cover will be separated from the congress unit.

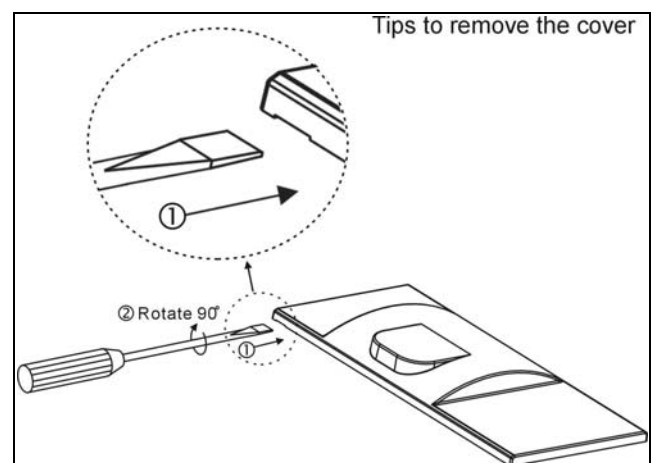


Figure 3.27 Dismounting the protective cover of M-series discussion unit

3.5.3 Connection

3.5.3.1 Connecting to the CMU or the EMU

The M-series discussion unit is equipped with a 1.5-meter long 6P-DIN cable with a standard male connector. To connect to the HCS-4100/50 CMU or the HCS-8300 EMU, just connect the male connector of the first unit to the output of the main unit.

If there is a long distance between the congress unit and the CMU (EMU), CBL6PS extension cable can be used. One end is equipped with a 6P-DIN male connector and the opposite end with a female connector. Just connect the female connector of the cable to the next congress unit, and connect the male connector to the output of the main unit.

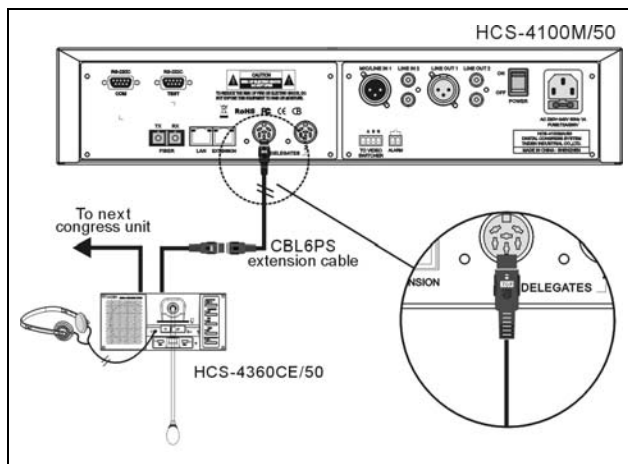


Figure 3.28 M-series discussion unit connected to the CMU or the EMU

Neither the replacement of congress units nor cable faults between congress units will affect the other units if “daisy-chain closed-loop” connection topology is selected. Ring connection, achieved by closing the loop of the daisy-chained units, increases system reliability. To obtain “daisy-chain” ring connection, just connect the last congress unit back to the CMU or the EMU with a CBL6PP extension cable (the cable features a 6P-DIN male connector at each end).

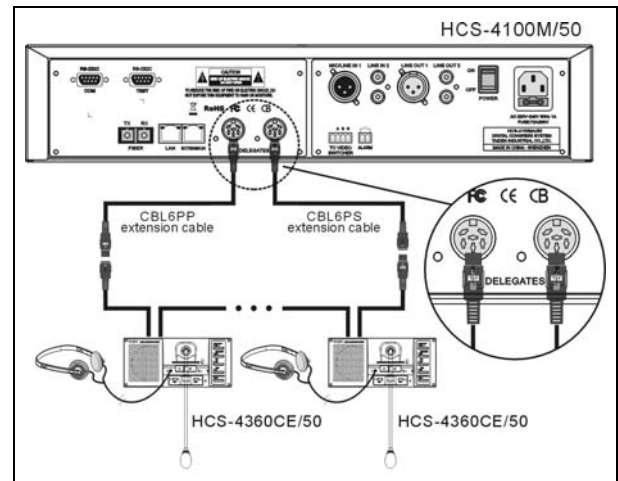


Figure 3.29 Ring connection between the CMU and M-series discussion units

3.5.3.2 Connection between congress units

All congress units of HCS-4100/50 FDGS are daisy-chained easily and conveniently by dedicated 6P-DIN cables.

When connecting to another congress unit, just connect the 6P-DIN standard female connector on the 0.6-meter cable of the unit to the 6P-DIN standard male connector on the 1.5-meter cable of the next unit.

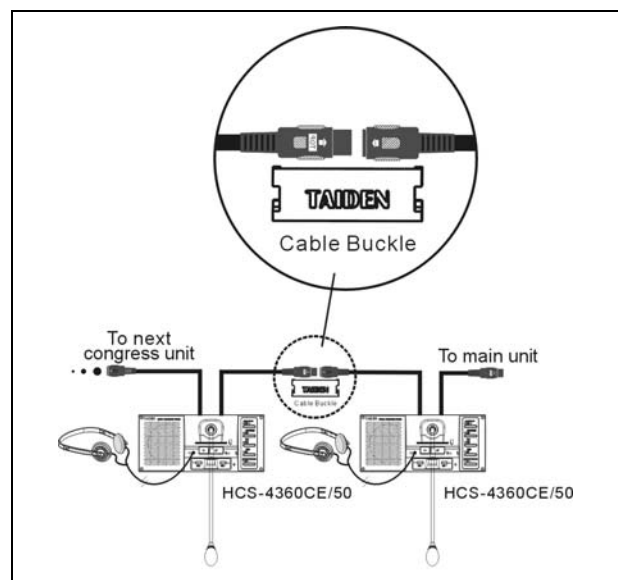
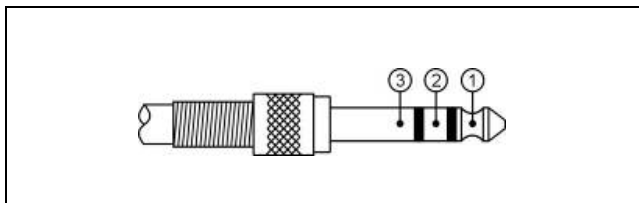


Figure 3.30 “Daisy-chain” connection between M-series discussion units

3.5.3.3 External earphone

An external earphone can be connected to the external earphone jack at the top of the congress unit. Its volume can be adjusted by the earphone volume control button. The external earphone shall have a Ø 3.5 mm plug, as in the following figure:



Functions and indications:

- 1.....Left stereo channel signal
- 2.....Right stereo channel signal
- 3.....Power ground/Shield

3.5.4 Operation

Before a meeting starts, the congress units need to be configured by the operator, including: numbering and testing. During the meeting, the participants can use the congress unit to sign-in, activate microphone, request to speak, vote, etc.

3.5.4.1 Delegate unit

We take HCS-4360D/50 as an example to introduce the operation of M-series discussion units. The other discussion units of this series feature one or more of these functions.

1. Number

First of all, make sure that the congress units are connected properly to the CMU. All congress units must be numbered when the system is used for the first time or when adding or replacing congress units. The numbering function can be activated by menu operation on the CMU front panel or by application software.

Select “Number” by menu operation from the CMU, press the “MENU” key to confirm, following the system goes to numbering status. “Press ‘1’ key of all congress units one by one and repower” will be displayed on the CMU LCD. The number indicating light of all connected congress units will blink. Press key “Sign-in/Number” of all congress units one by one. The number indicating light will be deactivated. Once all congress units numbered, restart the CMU to update the number information.

Note:

☞ When numbering, please number the conference units one by one and do NOT press “number” key of several conference units at the same time.

2. Sign-in (application software needed)

To carry out voting, discussion units with voting and IC-Card reader and voting units should be registered via key press or IC-card. With application software, registration is available by choosing “Seat Sign-in”.

- **Key-press sign-in** (HCS-4362D/50 and HCS-4363D/50 do not have this function)

In key-press sign-in status, the indicating light on key “1” will blink, press key “1” to sign-in and the indicating light will be turned off.

- **IC card sign-in** (HCS-4361DE/50, HCS-4362D/50 and HCS-4363D/50 do not have this function)

In IC card sign-in status, “Cd” will be displayed on the SI channel display. Insert the IC card correctly; channel number “00” will be displayed. If the IC card is invalid or inserted incorrectly, “Er” will be displayed on the SI channel display. Please insert the IC card correctly or contact the technical support.

3. Speaking

Speaking mode is configured on the CMU. (refer to section 2.4)

A. “Open” mode

- Active microphone number limitation (1/2/3/4) **NOT reached:**
 - a. The microphone On/Off key indicating light and the microphone illuminated light ring (red) will be activated at the same time as the microphone On/Off key is pressed. The speaker can give his/her speech, the built-in loudspeaker is muted;
 - b. The microphone will be deactivated when the microphone On/Off key is pressed again. The microphone On/Off key indicating light and the microphone illuminated light ring will be deactivated. The built-in loudspeaker will be activated, presumed the earphone is not plugged. If the earphone is plugged, the built-in loudspeaker will be deactivated.

■ Active microphone number limitation (1/2/3/4)

reached:

- a. The microphone On/Off key indicating light will blink and the microphone illuminated light ring (blue) will be activated when the key is pressed to request to speak;
- b. Press this key again to cancel the request to speak;
- c. When an active microphone is turned off, the first request microphone will be activated. At most 6 microphones can request to speak.

B. “Override” mode

■ Active microphone number limitation (1/2/3/4) **NOT reached:**

- a. The microphone On/Off key indicating light and the microphone illuminated light ring (red) will be activated at the same time as the microphone On/Off key is pressed. The speaker can give his/her speech, the built-in loudspeaker is muted;
- b. The microphone will be deactivated when the microphone On/Off key is pressed again. The microphone On/Off key indicating light and the microphone illuminated light ring will be deactivated. The built-in loudspeaker will be activated, presumed the earphone is not plugged. If the earphone is plugged, the built-in loudspeaker will be deactivated.

■ Active microphone number limitation (1/2/3/4) **reached:**

If the microphone On/Off key is pressed, its microphone will be activated and the first activated microphone will be deactivated at the same time to maintain the active microphone number limitation.

C. “Voice” mode

■ Active microphone number limitation (1/2/3/4) **NOT reached:**

- a. The microphone On/Off key indicating light remains on. When the delegate speaks into the microphone at a short distance, the microphone will be activated. The microphone illuminated light ring will be activated, and the built-in loudspeaker will be deactivated automatically;

b. If the delegate does not speak for several seconds, the microphone will be deactivated automatically and the built-in loudspeaker will be activated. The interval time can be adjusted at the main unit (refer to section 2.4);

- c. When the microphone is activated, pressing the microphone On/Off key turns it off.

■ Active microphone number limitation (1/2/3/4) **reached:**

All other microphones cannot be activated unless one of the active microphones is turned off.

D. “Apply” mode

- a. Request to speak function: when the microphone On/Off key is pressed, a ring tone will be produced (ring mode has been configured as “ON”). The microphone illuminated light ring (blue) will be activated. The chairman unit can approve or reject his/her request;
- b. When his/her request is approved, the microphone illuminated light ring will turn red, he/she can speak. Only one delegate is enabled to speak;
- c. When the active microphone number limitation is reached, none other delegate can request unless one of the active microphones is turned off.

E. “PTT” mode

■ Active microphone number limitation (1/2/3/4) **NOT reached:**

- a. Press and hold the microphone On/Off button to activate the microphone, the microphone active indicating light and the microphone On/Off button indicating light will turn red. The speaker can give his/her speech, the built-in loudspeaker will be muted;

- b. The microphone will be deactivated when this button is released. The microphone active indicating light and the microphone On/Off button indicating light will be deactivated. The built-in loudspeaker will be activated, presumed the earphone is not plugged. If the earphone is plugged, the built-in loudspeaker will be deactivated.

- Active microphone number limitation (1/2/3/4)

reached:

Pressing this key cannot activate the microphone until one of the activated microphones is switched off.

The speaking mode as well as the active microphone number limitation can be configured at the main unit. The chairman unit and the VIP unit do not count in the active microphone number limitation. At most 6 microphones can be activated at the same time in a system. VIP units can be assigned by application software - at most 32 VIP units.

A camera can focus an activated microphone automatically (camera position preset by application software). Speaker's video can be exported to and displayed on large screen(s).

4. Voting (HCS-4362D/50 and HCS-4363D/50 do not have this function)

Voting can be originated by HCS-4100/50 application software.

- The voting button indicating lights of the congress unit start to blink, the delegate can press the voting button to vote;
- For "First key-press valid" voting, the delegate can vote only once, and his/her voting indicating lights will be deactivated and his/her voted item will be highlighted on the LCD after his/her voting;
- For "Last key-press valid" voting, the delegate can change his/her vote. When the delegate voted, the indicating light of his voted key will be activated and all other indicating lights will be deactivated and his/her voted item will be highlighted on the LCD. About 1 second later, all indicating lights will blink again, and the delegate can change his/her vote. His/her last voted key will be valid.
- The voting originated by the chairman unit only supports "Last key-press valid".

5. Channel selector (HCS-4361DE/50 and HCS-4363D/50 do not have this function)

- When the CMU is connected to interpretation unit(s), simultaneous interpretation function will work and the channel selector will be activated. To use the channel selector, an earphone must be

plugged in. When the earphone is plugged, the backlight of the channel select display lights up. The delegate can select a suitable language to listen to by means of the channel selector.

- When the earphone is pulled out, the backlight of the channel select display will extinguish and the built-in loudspeaker will switch to floor audio channel.

6. Volume control

- The volume of the built-in loudspeaker can be adjusted by the master volume control knob on the main unit;
- When the earphone is plugged, its volume can be adjusted by the earphone volume control on the lateral side of the unit. The built-in loudspeaker will be deactivated.

7. VIP unit

- Any delegate unit can be assigned as VIP unit by HCS-4100/50 application software. At most 32 VIP units can be assigned;
- As long as the active microphone number does not exceed 6 (including chairman/delegate/VIP), the microphone of the VIP unit can be activated freely;
- If the priority mode is configured as "All off", all active delegate microphones will be turned off when the chairman presses his priority key, and all active VIP microphones will just be muted temporarily. They will restore when the chairman releases his priority key;
- If the active microphone number reached 6, the microphone illuminated light ring (blue) will be activated and the microphone On/Off key indicating light will blink when the microphone On/Off key is pressed. The microphone cannot be turned on unless one of the active microphones is deactivated.

3.5.4.2 Chairman unit

The chairman unit features all the functions of a delegate unit, and the following additional functions:

1. Priority

- If the priority mode on the main unit is configured as “All mute”, all active delegate and VIP microphones will be muted temporarily when this key is pressed and they will restore when this key is released;
- If configured as “All off”, all active delegate microphones will be turned off and the request-to-speak list will be purged (in “Open” mode and “Apply” mode) when this key is pressed. All active VIP microphones will be muted temporarily when this key is pressed. They will restore when this key is released.

2. Speaking

- If the number of active microphones in the system is less than 6 (including chairman /delegate /VIP), the chairman can activate his/her microphone normally, the operation is the same as for the delegate unit (refer to section 3.5.4.1).
- If the number of active microphones in the system is 6, the chairman cannot activate his/her microphone. But he/she can use the “Priority” key to “All mute” or “All off” other microphones and give his/her speech.

3. Controlling delegate unit

A. Approve delegate unit's request to speak

Under “Apply” mode, when a delegate requests to speak, a ring tone will be emitted by the built-in loudspeaker in the chairman's unit.

The chairman can now approve delegate's request and activate delegate's microphone by pressing the microphone on/off key or reject delegate's request by pressing the priority key.

Only one delegate can request to speak at one time and a ring tone will also be emitted by the built-in loudspeaker.

B. Turn off or mute delegate microphone

The chairman can use the “Priority” key to execute “All mute” or “All off” operation.

4. Voting

HCS-4360C/50 chairman unit cannot originate voting without a PC:

- When controlled by application software, nominative or ballot voting are available;
- “First key-press valid” or “Last key-press valid” are available;
- Voting can be controlled by application software. Voting operation of the chairman unit and the delegate unit are identical. In this mode, voting can also be controlled by the chairman unit. The “Start voting” indicating light on the chairman unit will blink. Voting starts once the chairman pressed the “Start voting” key.

3.6 HCS-4330/31/32/33/35 (D-) series congress unit

3.6.1 Functions and indications

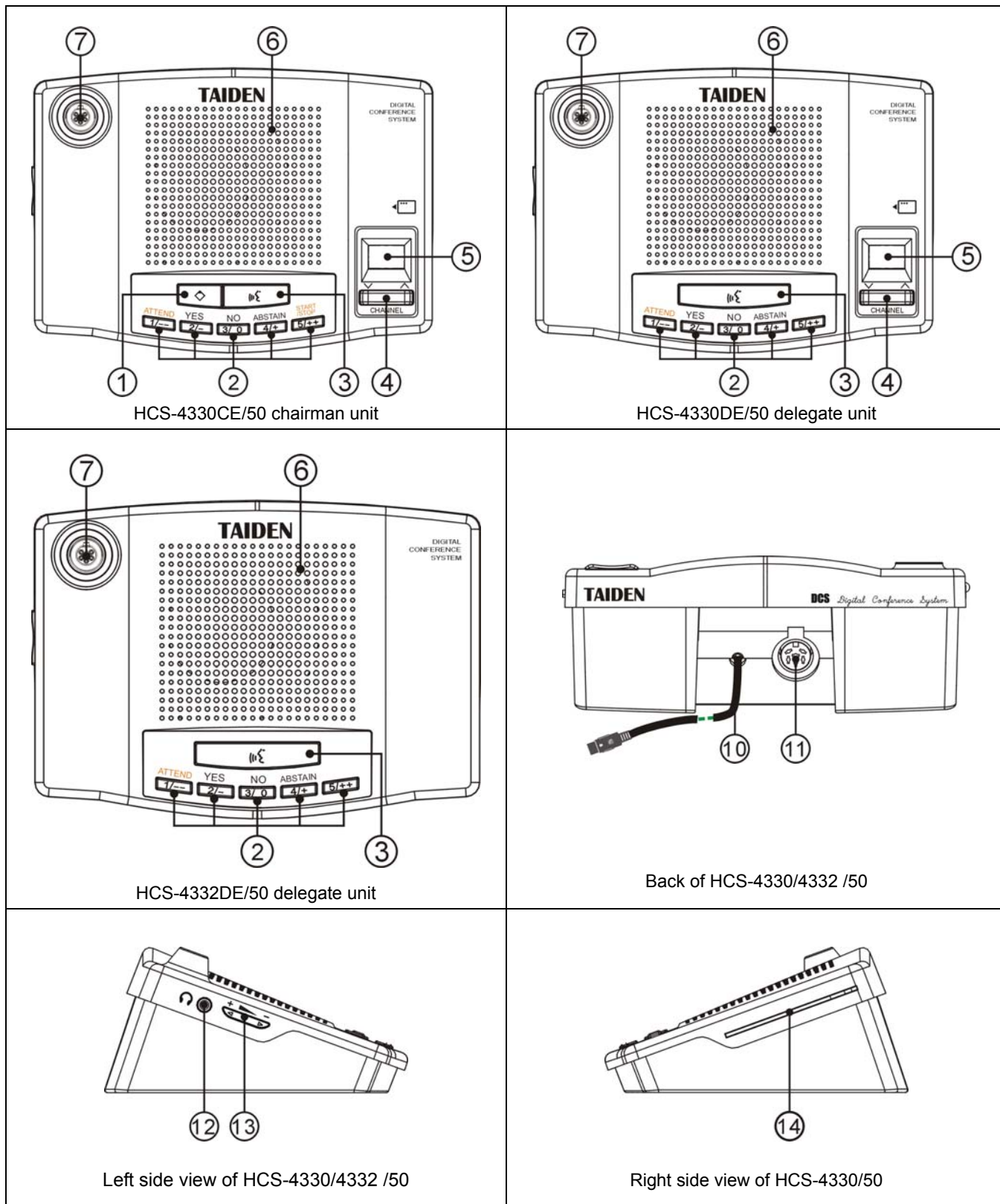
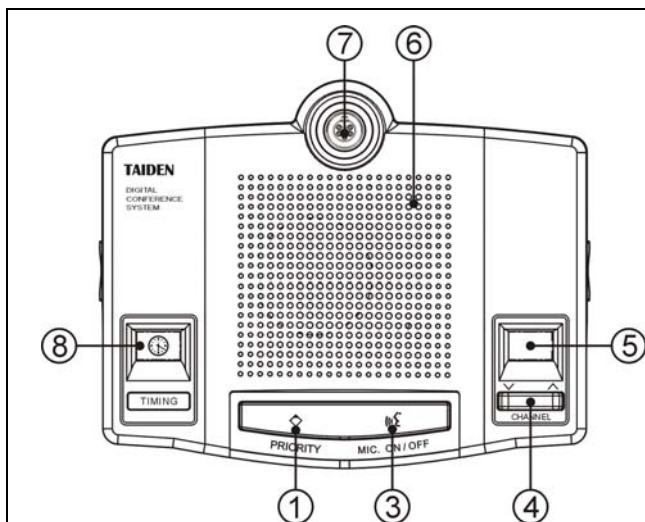
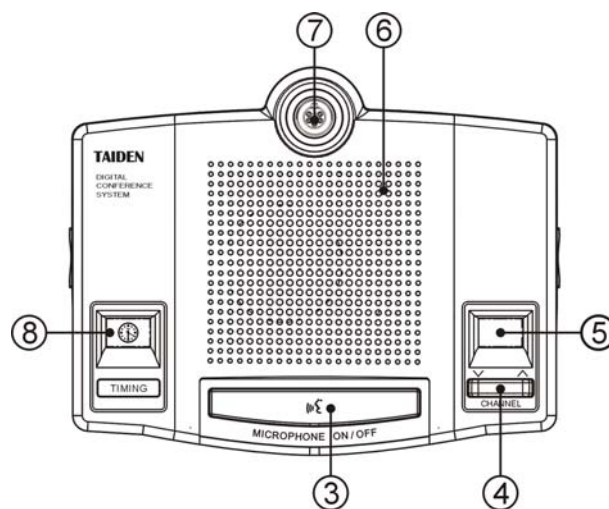


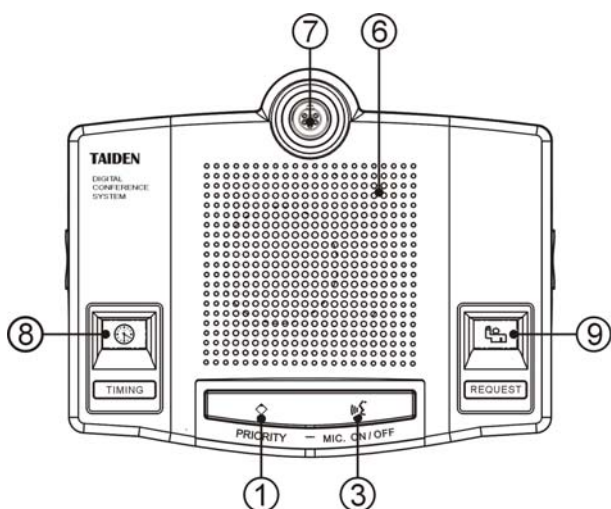
Figure 3.31 D-series congress units (HCS-4330/4332 /50)



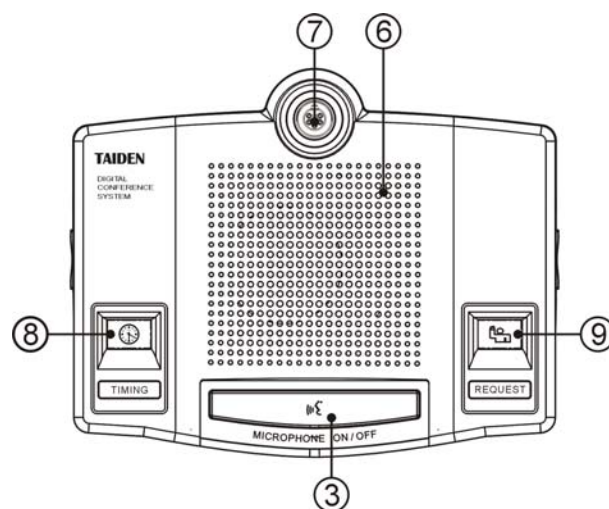
HCS-4331CB/50 chairman unit



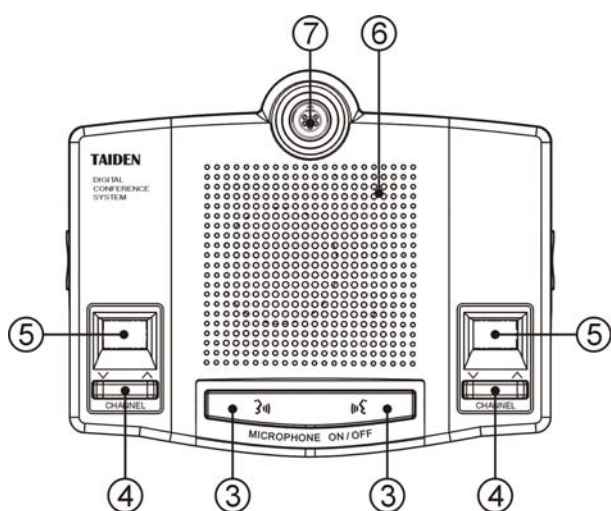
HCS-4331DB/50 delegate unit



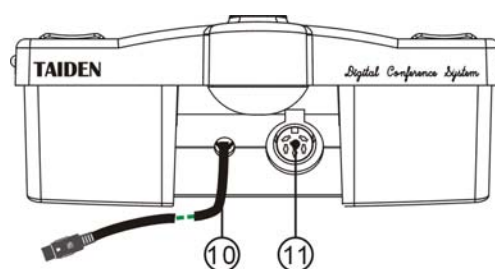
HCS-4333CB/50 chairman unit



HCS-4333DB/50 delegate unit



HCS-4335D/50 delegate unit



Back of HCS-4331/4333/4335 /50

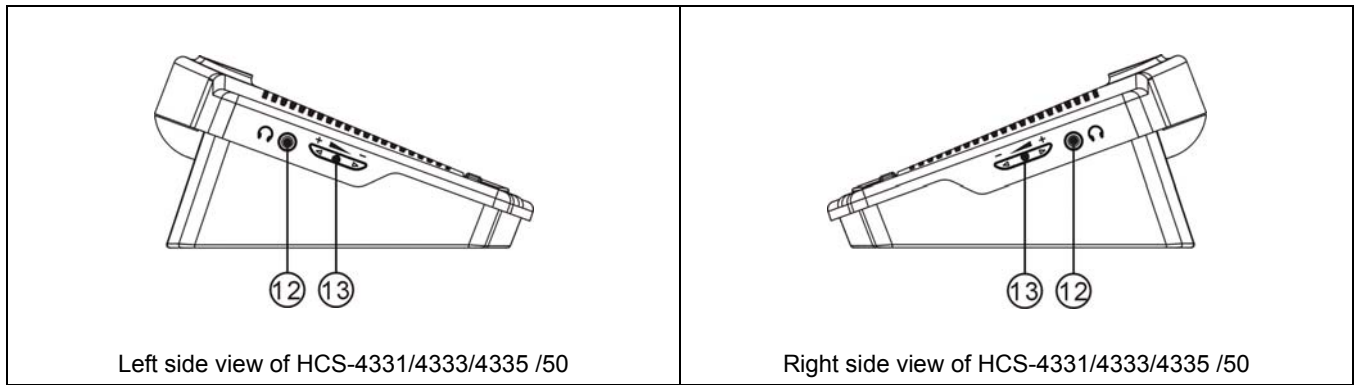


Figure 3.32 D-series congress units (HCS-4331/4333/4335 /50)

3.6.1.1 Front

1. Priority key with indicating light (for the chairman unit only):

- ◆ According to the priority mode configuration on the main unit:
 - ◇ If configured as “All mute”, all active delegate and VIP microphones will be muted temporarily when this key is pressed and they will resume when the key is released;
 - ◇ If configured as “All off”, all active delegate microphones will be switched off when this key is pressed. All active VIP microphones will be muted temporarily and will resume when the key is released.
- ◆ Under “OPEN” and “Apply” mode, pressing this key will clear the request list (deny all delegates’ requests to speak);
- ◆ If the chairman microphone is not active, pressing this key will activate it;
- ◆ If the ring tone mode is configured as “ON”, a ring tone will be produced when this key is pressed, and the indicating light of the priority key will be turned on.

2. 5 voting keys with indicating light

- ◆ Sign-in/Number/Option1/Response--Key (“ATTEND/NUMBER/1/--”)

- a) In key-press sign-in mode, the sign-in indicating light will blink, press this key to sign-in;
- b) In voting mode (Multiple choice/Opinion poll), the voting indicating light will blink, press this key to vote for option 1;
- c) In voting mode (Audience response/Rating), the voting indicating light will blink, press this key to vote for 0 (“-”).

- ◆ Yes/Option 2/Response - Key (“YES/2/-”)

- a) In voting mode (Parliamentary), the voting

indicating light will blink, press this key to vote for “Yes”;

- b) In voting mode (Multiple choice/Opinion poll), the voting indicating light will blink, press this key to vote for option 2;
- c) In voting mode (Audience response/Rating), the voting indicating light will blink, press this key to vote for 25 (“-”).

- ◆ No/Option 3/Response 0 Key (“NO/3/0”)

- a) In voting mode (Parliamentary), the voting indicating light will blink, press this key to vote for “No”;
- b) In voting mode (Multiple choice/Opinion poll), the voting indicating light will blink, press this key to vote for option 3;
- c) In voting mode (Audience response/Rating), the voting indicating light will blink, press this key to vote for 50 (“0”)

- ◆ Abstain/Option 4/Response + Key (“ABSTAIN/4/+”)

- a) In voting mode (Parliamentary), the voting indicating light will blink, press this key to vote for “Abstain”;
- b) In voting mode (Multiple choice/Opinion poll), the voting indicating light will blink, press this key to vote for option 4;
- c) In voting mode (Audience response/Rating), the voting indicating light will blink, press this key to vote for 75 (“+”).

- ◆ Start/Stop/Option 5/Response ++ Key (“START/STOP/5/++”)

- a) In voting mode (Multiple choice/Opinion poll), the voting indicating light will blink, press this key to vote for option 5;
- b) In voting mode (Audience response/Rating), the voting indicating light will blink, press this

key to vote for 100 (“++”);

- c) Chairman unit: if the system is connected to a PC and if the application software is setup for voting control mode by chairman control, key “5” will blink when clicking the “Start voting” button in the voting interface of the application software. The chairman can press this key to enter voting status. Once the chairman voted, the indicating light will blink again. After confirmation that all delegates voted, the chairman pushes key “5” to close voting. Application software will calculate the voting results.

3. Microphone On/Off key with indicating light (for the chairman unit)

Microphone/request key with indicating light (for the delegate unit):

1. Chairman unit: press this key to activate the microphone and the indicating light;
2. Delegate unit:
 - a. Under “VERRIDE” mode, press this key to activate/deactivate the microphone and the indicating light;
 - b. Under “OPEN” mode,
 - When the number of active microphones does not reach the limitation, press this key to activate/deactivate the microphone. When the microphone is activated, the microphone On/Off button indicating light and the microphone lamp ring will change to red.
 - When the number of active microphones reaches the limitation, press this key to request/cancel request to speak. When requesting to speak, the microphone On/Off button indicating light will blink in red, and the microphone lamp ring will change to blue;
 - c. Under “VOICE” mode,
 - When not speaking, the microphone On/Off button indicating light remains red;
 - When speaking, the microphone On/Off button indicating light and the microphone lamp ring remain red;
 - d. Under “APPLY” mode,
 - When the number of active microphones does not reach the limitation, press this key to request/cancel the request to speak and the indicating light will blink when on “request”. The speaking request is approved or rejected

by the chairman unit with control facility, only one delegate unit can request at the same time;

- When the number of active microphones reaches the limitation, none other delegate unit can request to speak, the speaking request is available once one of the activated microphones is switched off.

e. Under “PTT” mode,

- If the maximal number of active microphones is not reached, pressing and holding this key will activate the microphone, and the indicating light will be turned on; releasing the key after speech will turn off the microphone.
- If the maximal number of active microphones has been reached, pressing this key cannot activate the microphone until one of the activated microphones is switched off.

(refer to section 3.6.3 for details)

4. Simultaneous interpretation channel selector

- ♦ Available when the earphone is plugged

5. Simultaneous interpretation channel number display

6. Built-in Hi-Fi loudspeaker

- ♦ Mutes automatically to suppress howling when the microphone of the unit is active or when the earphone is inserted.
- ♦ Loudspeaker sends out floor channel audio only. The volume is controlled via the CMU or the application software.

7. Microphone socket

8. Indicating light for timing speaking

9. Indicating light for request to speak

3.6.1.2 Back

10. 2.1-meter 6P-DIN cable with standard plug (male x 1)

11. 6P-DIN standard plug (female x 1)

3.6.1.3 Side

12. Earphone jack (Ø 3.5 mm)

13. Earphone volume control

14. IC card socket

3.6.2 Connection

3.6.2.1 Connecting to the CMU or the EMU

The Q-series discussion unit is equipped with a 2.1-meter long 6P-DIN cable with a standard male connector. To connect to the HCS-4100/50 CMU or the HCS-8300 EMU, just connect the male connector of the first unit to the output of the main unit.

If there is a long distance between the congress unit and the CMU (EMU), CBL6PS extension cable can be used. One end is equipped with a 6P-DIN male connector and the opposite end with a female connector. Just connect the female connector of the cable to the next congress unit, and connect the male connector to the output of the main unit.

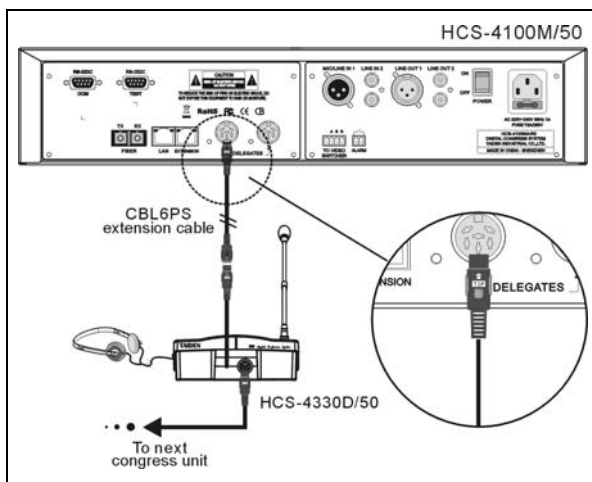


Figure 3.33 D-series discussion unit connected to the CMU or the EMU

Neither the replacement of congress units nor cable faults between congress units will affect the other units if “daisy-chain closed-loop” connection topology is selected. Ring connection, achieved by closing the loop of the daisy-chained units, increases system reliability. To obtain “daisy-chain” ring connection, just connect the last congress unit back to the CMU or the EMU with a CBL6PP extension cable (the cable features a 6P-DIN male connector at each end).

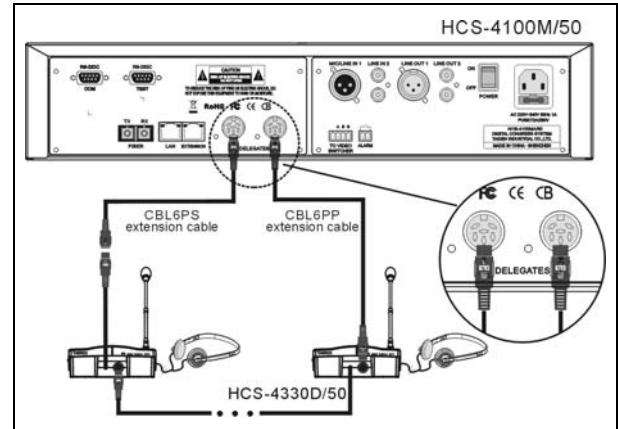


Figure 3.34 Ring connection between the CMU and D-series discussion units

3.6.2.2 Connection between congress units

All congress units of HCS-4100/50 FDGS are daisy-chained easily and conveniently by dedicated 6P-DIN cables.

When connecting to another congress unit, just connect the 6P-DIN standard male connector on the 2.1-meter cable of the next unit to the 6P-DIN standard female socket of this unit.

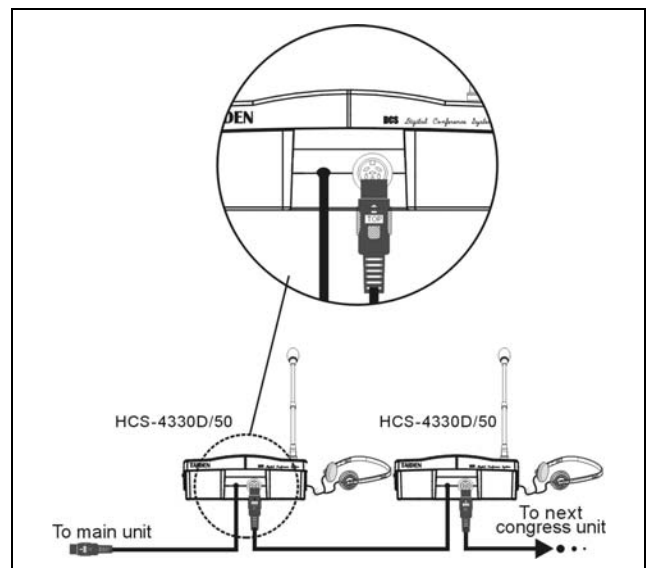
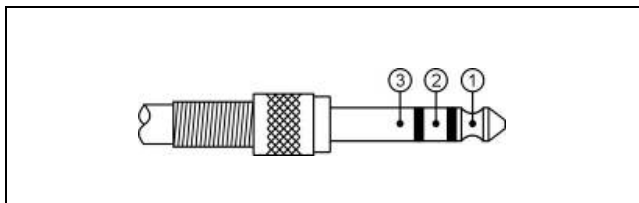


Figure 3.35 “Daisy-chain” connection between D-series discussion units

3.6.2.3 External earphone

An external earphone can be connected to the external earphone jack at the lateral side of the congress unit. Its volume can be adjusted by the earphone volume control button. The external earphone shall have a Ø 3.5 mm plug, as the following figure:



Functions and indications:

- 1.....Left stereo channel signal
- 2.....Right stereo channel signal
- 3.....Power ground/Shield

3.6.3 Operation

Before a meeting starts, the congress units need to be configured by the operator, including: numbering and testing. During the meeting, the participants can use the congress unit to sign-in, activate microphone, request to speak, vote, etc.

3.6.3.1 Delegate unit

We take HCS-4330D/50 as an example to introduce the operation of D-series discussion units. The other discussion units of this series feature one or more of these functions.

1. Number

First of all, make sure that all the congress units are connected properly to the CMU. All congress units must be numbered when the system is used for the first time or when adding or replacing congress units. The numbering function can be activated by menu operation on the CMU front panel or by application software.

Select “Number” by menu operation from the CMU, press the “MENU” key to confirm, following the system goes to numbering status. “Press ‘1’ key of all congress units one by one and repower” will be displayed on the CMU LCD. The number indicating light of all connected congress units will blink. Press key “1” (microphone On/Off key for discussion units) of all congress units one by one. The number indicating light will be deactivated. Once all congress units numbered, restart the CMU to update the number information.

Note:

☞ When numbering, please number the conference units one by one and do NOT press “number” key of several conference units at the same time.

2. Sign-in (application software needed)

To carry out voting, discussion units with voting and IC-Card reader and voting units should be registered via key press or IC-card. With application software, registration is available by choosing “Seat Sign-in”.

- **Key-press sign-in** (HCS-4331/50, HCS-4333/50 and HCS-4335D/50 do not have this function)

In key-press sign-in status, the indicating light on key “1” will blink, press key “1” to sign-in and the indicating light will be turned off.

- **IC card sign-in** (HCS-4331/50, HCS-4332D/50, HCS-4333/50 and HCS-4335D/50 do not have this function)

In IC card sign-in status, “Cd” will be displayed on the SI channel display. Insert the IC card correctly; channel number “00” will be displayed. If the IC card is invalid or inserted incorrectly, “Er” will be displayed on the SI channel display. Please insert the IC card correctly or the contact technical support.

3. Speaking

Speaking mode is configured on the CMU (refer to section 2.4).

A. “Open” mode

- Active microphone number limitation (1/2/3/4) **NOT reached:**

d. The microphone On/Off key indicating light and the microphone illuminated light ring (red) will be activated at the same time as the microphone On/Off key is pressed. The speaker can give his/her speech, the built-in loudspeaker is muted;

e. The microphone will be deactivated when the microphone On/Off key is pressed again. The microphone On/Off key indicating light and the microphone illuminated light ring will be deactivated. The built-in loudspeaker will be activated, presumed the earphone is not plugged. If the earphone is plugged, the built-in loudspeaker will be deactivated.

■ Active microphone number limitation (1/2/3/4)

reached:

- a. The microphone On/Off key indicating light will blink and the microphone illuminated light ring (blue) will be activated when the key is pressed to request to speak;
- b. Press this key again to cancel the request to speak;
- c. When an active microphone is turned off, the first request microphone will be activated. At most 6 microphones can request to speak.

B. “Override” mode

■ Active microphone number limitation (1/2/3/4) **NOT reached:**

- a. The microphone On/Off key indicating light and the microphone illuminated light ring (red) will be activated at the same time as the microphone On/Off key is pressed. The speaker can give his/her speech, the built-in loudspeaker is muted;
- b. The microphone will be deactivated when the microphone On/Off key is pressed again. The microphone On/Off key indicating light and the microphone illuminated light ring will be deactivated. The built-in loudspeaker will be activated, presumed the earphone is not plugged. If the earphone is plugged, the built-in loudspeaker will be deactivated.

■ Active microphone number limitation (1/2/3/4) **reached:**

If the microphone On/Off key is pressed, its microphone will be activated and the first activated microphone will be deactivated at the same time to maintain the active microphone number limitation.

C. “Voice” mode

■ Active microphone number limitation (1/2/3/4) **NOT reached:**

- a. The microphone On/Off key indicating light remains on. When the delegate speaks into the microphone at a short distance, the microphone will be activated. The microphone illuminated light ring will be activated, and the built-in loudspeaker will be deactivated automatically;

b. If the delegate does not speak for several seconds, the microphone will be deactivated automatically and the built-in loudspeaker will be activated. The interval time can be adjusted at the main unit (refer to section 2.4);

- c. When the microphone is activated, pressing the microphone On/Off key turns it off.

■ Active microphone number limitation (1/2/3/4) **reached:**

All other microphones cannot be activated unless one of the active microphones is turned off.

D. “Apply” mode

- a. Request to speak function: when the microphone On/Off key is pressed, a ring tone will be produced (ring mode has been configured as “ON”). The microphone illuminated light ring (blue) will be activated. The chairman unit can approve or reject his/her request;
- b. When his/her request is approved, the microphone illuminated light ring will turn red, he/she can speak. Only one delegate is enabled to speak;
- c. When the active microphone number limitation is reached, none other delegate can request unless one of the active microphones is turned off.

E. “PTT” mode

■ Active microphone number limitation (1/2/3/4) **NOT reached:**

- a. Press and hold the microphone On/Off button to activate the microphone, the microphone active indicating light and the microphone On/Off button indicating light will turn red. The speaker can give his/her speech, the built-in loudspeaker will be muted;

- b. The microphone will be deactivated when this button is released. The microphone active indicating light and the microphone On/Off button indicating light will be deactivated. The built-in loudspeaker will be activated, presumed the earphone is not plugged. If the earphone is plugged, the built-in loudspeaker will be deactivated.

- Active microphone number limitation (1/2/3/4)

reached:

Pressing this key cannot activate the microphone until one of the activated microphones is switched off.

The speaking mode as well as the active microphone number limitation can be configured from the main unit. The chairman unit and the VIP unit do not count in the active microphone number limitation. At most 6 microphones can be activated at the same time in a system. VIP units can be assigned by application software - at most 32 VIP units.

A camera can focus an activated microphone automatically (camera position preset by application software). Speaker's video can be exported to and displayed on large screen(s).

4. Voting (HCS-4331/50, HCS-4333/50 and HCS-4335D/50 do not have this function)

Voting can be originated by HCS-4100/50 application software.

- The voting button indicating lights of the congress unit start to blink, the delegate can press the voting button to vote;
- For "First key-press valid" voting, the delegate can vote only once, and his/her voting indicating lights will be deactivated after his/her voting;
- For "Last key-press valid" voting, the delegate can change his/her vote. When the delegate voted, the indicating light of his voted key will be activated and all other indicating lights will be deactivated. About 1 second later, all indicating lights will blink again, and the delegate can change his/her vote. His/her last voted key will be valid.

5. Channel select (HCS-4332D/50 and HCS-4333/50 do not have this function)

- When the CMU is connected to interpretation unit(s), simultaneous interpretation function will work and the channel selector will be activated. To use the channel selector, an earphone must be plugged in. When the earphone is plugged, the backlight of the channel select display lights up. The delegate can select a suitable language to listen to by means of the channel selector.

- When the earphone is pulled out, the backlight of the channel select display will extinguish and the built-in loudspeaker will switch to floor audio channel.

6. Volume control

- The volume of the built-in loudspeaker can be adjusted by the master volume control knob on the main unit;
- When the earphone is plugged, its volume can be adjusted by the earphone volume control on the lateral side of the unit. The built-in loudspeaker will be deactivated.

7. VIP unit

- Any delegate unit can be assigned as VIP unit by HCS-4100/50 application software. At most 32 VIP units can be assigned;
- As long as the active microphone number does not exceed 6 (including chairman/delegate/VIP), the microphone of the VIP unit can be activated freely;
- If the priority mode is configured as "All off", all active delegate microphones will be turned off when the chairman presses his priority key, and all active VIP microphones will just be muted temporarily. They will restore when the chairman releases his priority key;
- If the active microphone number reached 6, the microphone illuminated light ring (blue) will be activated and the microphone On/Off key indicating light will blink when the microphone On/Off key is pressed. The microphone cannot be turned on unless one of the active microphones is deactivated.

3.6.3.2 Chairman unit

The chairman unit features all delegate unit functions and the following additional functions:

1. Priority

- If the priority mode on the main unit is configured as “All mute”, all active delegate and VIP microphones will be muted temporarily and the request-to-speak list will be purged when this key is pressed and they will restore when this key is released;
- If configured as “All off”, all active delegate microphones will be turned off and the request-to-speak list will be purged (in “Open” mode and “Apply” mode) when this key is pressed. All active VIP microphones will be muted temporarily when this key is pressed and they will restore when this key is released.

2. Speaking

- If the number of active microphones in the system is less than 6 (including chairman /delegate /VIP), the chairman can activate his/her microphone normally, the operation is the same as for the delegate unit (refer to section 3.6.3.1).
- If the number of active microphones in the system is 6, the chairman cannot activate his/her microphone. But he/she can use the “Priority” key to “All mute” or “All off” other microphones and give his/her speech.

3. Controlling delegate unit

A. Approve delegate unit's request to speak

Under “Apply” mode, when a delegate requests to speak, a ring tone will be emitted by the built-in loudspeaker in the chairman's unit.

The chairman can now approve the delegate's request and activate the delegate's microphone by pressing the microphone on/off key or reject delegate's request by pressing the priority key.

Only one delegate can request to speak at one time and a ring tone will also be emitted by the built-in loudspeaker.

B. Turn off or mute delegate microphone

The chairman can use the “Priority” key to execute “All mute” or “All off” operation.

4. Voting

D-series chairman unit cannot originate voting without a PC:

- When controlled by application software, nominative or ballot voting are available;
- “First key-press valid” or “Last key-press valid” are available;
- Voting can be controlled by application software. Voting operation of the chairman unit and the delegate unit are identical. In this mode, voting can also be controlled by the chairman unit. The “Start voting” indicating light on the chairman unit will blink. Voting starts once the chairman pressed the “Start voting” key.

3.7 HCS-4320/21/22 (L-) series congress unit

3.7.1 Functions and indications

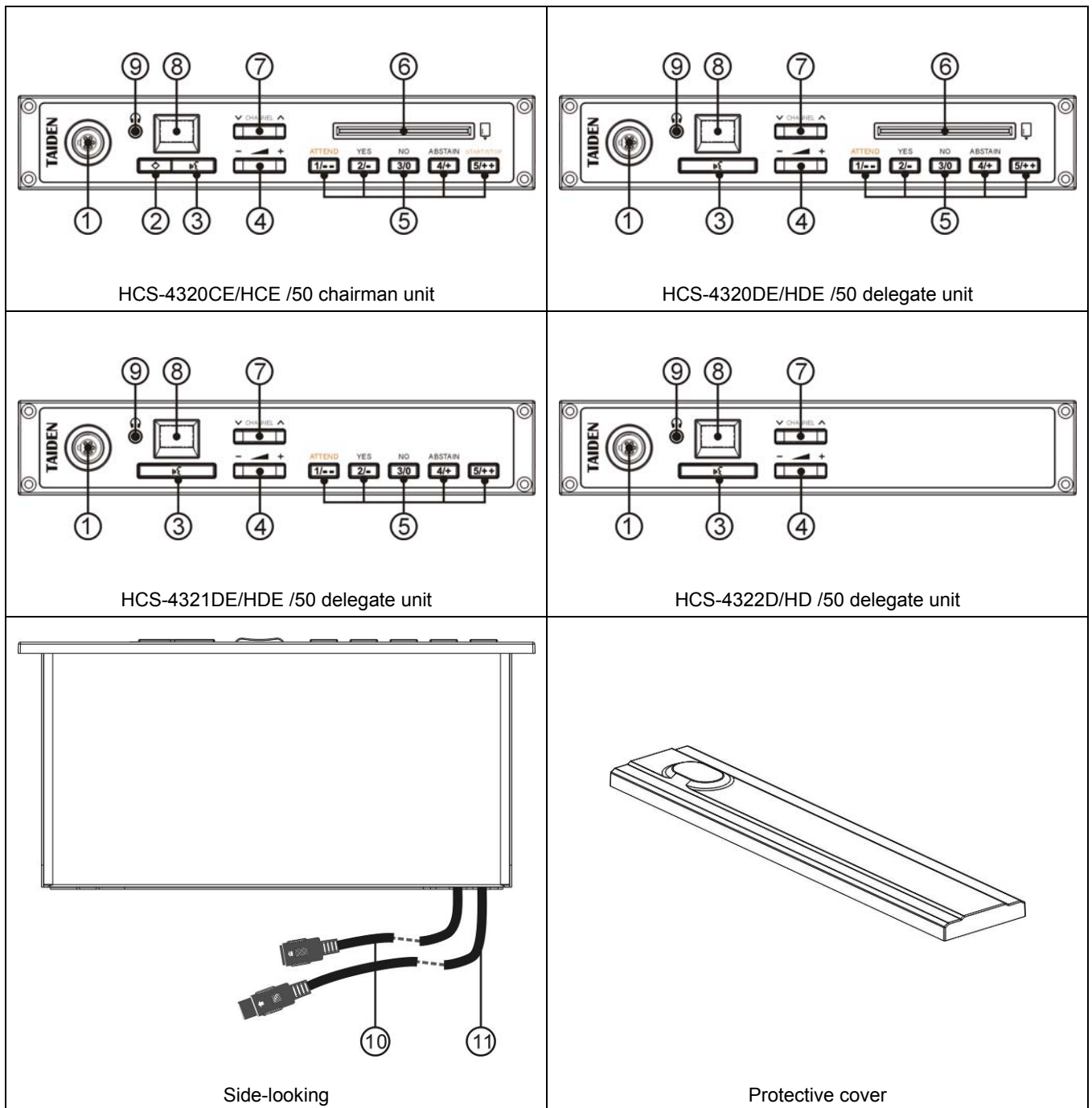


Figure 3.36 L-series congress units

3.7.1.1 Front

1. Microphone socket

- ◆ HCE/HDE/HD are equipped with a handheld microphone and do not have this interface.

2. Priority key with indicating light (for the chairman unit only):

- ◆ According to the priority mode configuration on the main unit:
 - ◇ If configured as “All mute”, all active delegate

and VIP microphones will be muted temporarily when this key is pressed and they will resume when the key is released;

- ◇ If configured as “All off”, all active delegate microphones will be switched off when this key is pressed. All active VIP microphones will be muted temporarily and will resume when the key is released.

- ◆ Under “OPEN” and “Apply” mode, pressing this key will clear the request list (deny all delegates’ requests to speak);
- ◆ If the chairman microphone is not active, pressing this key will activate it;
- ◆ If the ring tone mode is configured as “ON”, a ring tone will be produced when this key is pressed, and the indicating light of the priority key will be turned on.

3. Microphone On/Off key with indicating light (for the chairman unit)

Microphone/request key with indicating light (for the delegate unit):

- ◆ Chairman unit: press this key to activate the microphone and the indicating light;
- ◆ Delegate unit:
 - a. Under “OVERRIDE” mode, press this key to activate/deactivate the microphone and the indicating light;
 - b. Under “OPEN” mode,
 - When the number of active microphones does not reach the limitation, press this key to activate/deactivate the microphone. When the microphone is activated, the microphone On/Off button indicating light and the microphone lamp ring will change to red.
 - When the number of active microphones reaches the limitation, press this key to request/cancel request to speak. When requesting to speak, the microphone On/Off button indicating light will blink in red, and the microphone lamp ring will change to blue;
 - c. Under “VOICE” mode,
 - when not speaking, the microphone On/Off button indicating light remains red;
 - when speaking, the microphone On/Off button indicating light and the microphone lamp ring remain red;
 - d. Under “APPLY” mode,
 - When the number of active microphones does not reach the limitation, press this key to request/cancel the request to speak and the indicating light will blink when on “request”. The speaking request is approved or rejected by the chairman unit with control facility, only one delegate unit can request at the same time;
 - When the number of active microphones

reaches the limitation, none other delegate unit can request to speak, the speaking request is available once one of the activated microphones is switched off.

e. Under “PTT” mode,

- If the maximal number of active microphones is not reached, pressing and holding this key will activate the microphone, and the indicating light will be turned on; releasing the key after speech will turn off the microphone.
- If the maximal number of active microphones has been reached, pressing this key cannot activate the microphone until one of the activated microphones is switched off.

(refer to section 3.7.4 for details)

4. Earphone volume control

5. 5 voting keys with indicating light:

◆ Sign-in/Number/Option1/Response--Key (“ATTEND/NUMBER/1/--”)

- a) In key-press sign-in mode, the sign-in indicating light will blink, press this key to sign-in;
- b) In voting mode (Multiple choice/Opinion poll), the voting indicating light will blink, press this key to vote for option 1;
- c) In voting mode (Audience response/Rating), the voting indicating light will blink, press this key to vote for 0 (“-”).

◆ Yes/Option 2/Response - Key (“YES/2/-”)

- a) In voting mode (Parliamentary), the voting indicating light will blink, press this key to vote for “Yes”;
- b) In voting mode (Multiple choice/Opinion poll), the voting indicating light will blink, press this key to vote for option 2;
- c) In voting mode (Audience response/Rating), the voting indicating light will blink, press this key to vote for 25 (“-”).

◆ No/Option 3/Response 0 Key (“NO/3/0”)

- a) In voting mode (Parliamentary), the voting indicating light will blink, press this key to vote for “No”;
- b) In voting mode (Multiple choice/Opinion poll), the voting indicating light will blink, press this key to vote for option 3;
- c) In voting mode (Audience response/Rating), the voting indicating light will blink, press this key to vote for 50 (“0”)

◆ Abstain/Option 4/Response + Key ("ABSTAIN/4/+")

- a) In voting mode (Parliamentary), the voting indicating light will blink, press this key to vote for "Abstain";
- b) In voting mode (Multiple choice/Opinion poll), the voting indicating light will blink, press this key to vote for option 4;
- c) In voting mode (Audience response/Rating), the voting indicating light will blink, press this key to vote for 75 ("+").

◆ Start/Stop/Option 5/Response ++ Key
("START/STOP/5/++")

- a) In voting mode (Multiple choice/Opinion poll), the voting indicating light will blink, press this key to vote for option 5;
- b) In voting mode (Audience response/Rating), the voting indicating light will blink, press this key to vote for 100 ("++");
- c) Chairman unit: if the system is connected to a PC and if the application software is setup for voting control mode by chairman control, key "5" will blink when clicking the "Start voting" button in the voting interface of the application software. The chairman can press this key to enter voting status. Once the chairman voted, the indicating light will blink again. After confirmation that all delegates voted, the chairman pushes key "5" to close voting. Application software will calculate the voting results.

6. IC card socket

7. Simultaneous interpretation channel selector

- ◆ Available when the earphone is plugged

8. Simultaneous interpretation channel number display

9. Earphone jack (Ø 3.5 mm)

3.7.1.2 Bottom

**10. 0.6-meter 6P-DIN cable with standard plug
(female x 1)**

**11. 1.5-meter 6P-DIN cable with standard plug
(male x 1)**

3.7.2.2 Installation of L-series discussion unit (with handheld microphone)

- Drill holes according to figure 3.39 and make sure that the centers of these three holes be on a straight line;
- Put the congress unit ① into the square hole;
- Put ②、③ into the round holes;
- Align these three parts and fix them with screws ④ (special tool required). To avoid that the parts are moving away from each other or dislocate, do not fix them too tight.
- Drill four $\varnothing 2$ mm holes to avoid eccentricity and fix ① with screws;
- Fix all screws.

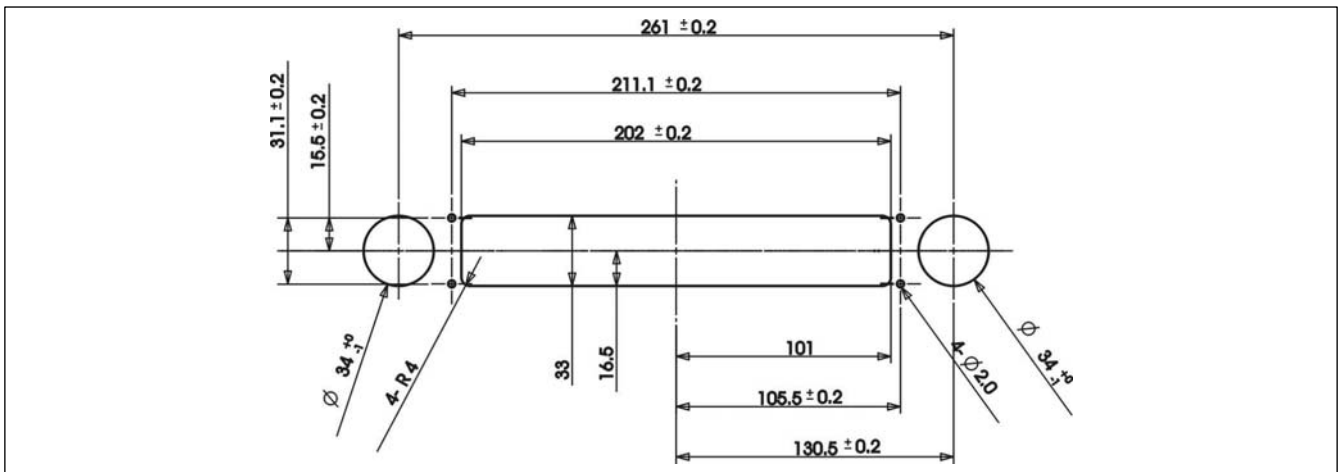
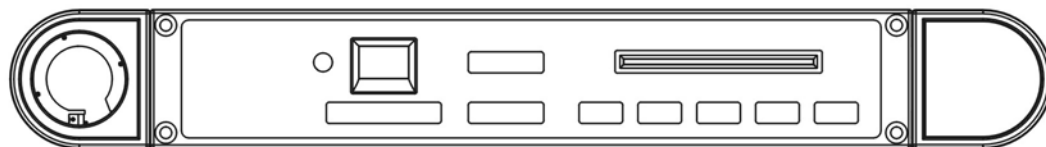


Figure 3.39 Fixing hole positioning diagram of L-series discussion unit (unit: mm)

The gap should be less than 0.1mm

The gap should be less than 0.1mm



Make sure that the centers of these three holes be on a straight line,
The tolerance should be less than 0.1mm

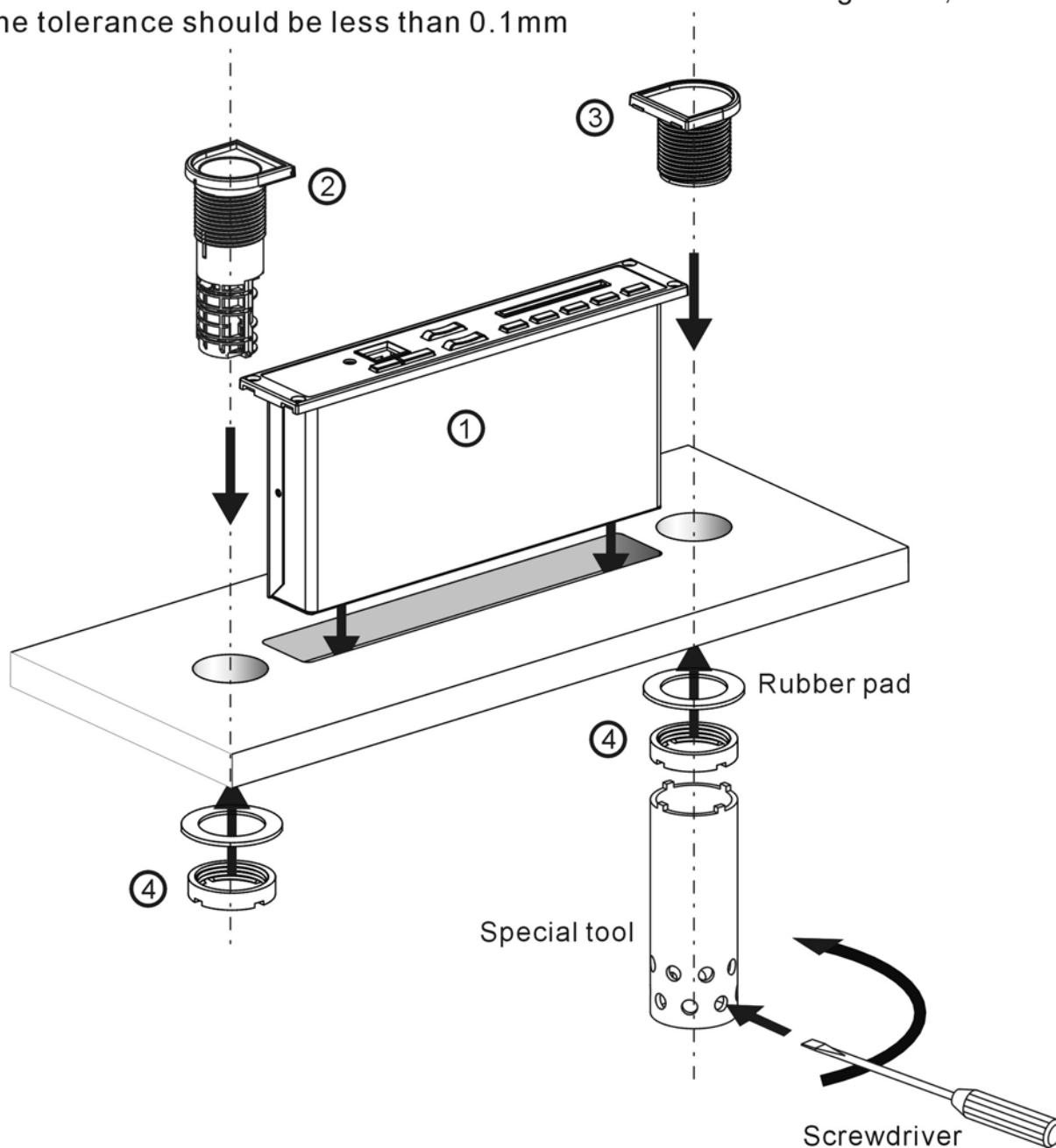


Figure 3.40 Installation diagram of L-series discussion unit

3.7.2.3 Installation of the protective cover of the L-series discussion unit

If not in use for a long time, just pull out the microphone and put the protective cover:

- a. Hook up the protective cover on the left side;
- b. Then press the protective cover tightly on the right side.

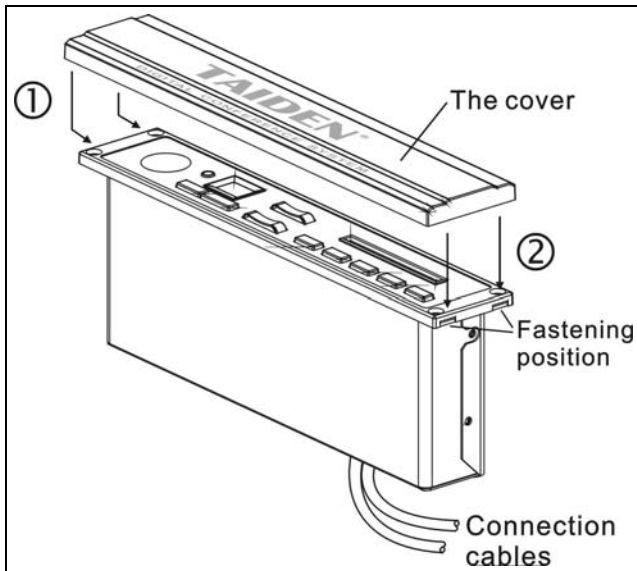


Figure 3.41 Installation diagram of the protective cover of L-series discussion unit

3.7.2.4 Dismounting the protective cover of the L-series discussion unit

- a. Prepare a straight screwdriver;
- b. Insert the straight screwdriver into the gap at the right lower side of the protective cover and rotate the screwdriver by 90 degrees, the protective cover will be separated from the congress unit.

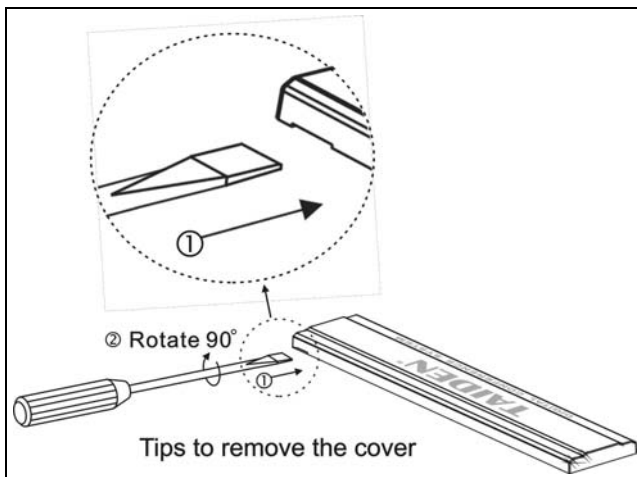


Figure 3.42 Dismounting the protective cover of L-series discussion unit

3.7.3 Connection

3.7.3.1 Connecting to the CMU or the EMU

The M-series discussion unit is equipped with a 1.5-meter long 6P-DIN cable with a standard male connector. To connect to the HCS-4100/50 CMU or the HCS-8300 EMU, just connect the male connector of the first unit to the output of the main unit.

If there is a long distance between the congress unit and the CMU (EMU), CBL6PS extension cable can be used. One end is equipped with a 6P-DIN male connector and the opposite end with a female connector. Just connect the female connector of the cable to the next congress unit, and connect the male connector to the output of the main unit.

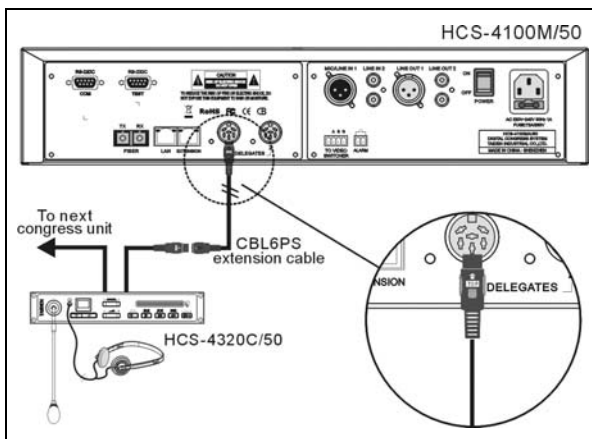


Figure 3.43 L-series discussion unit connected to the CMU or the EMU

Neither the replacement of congress units nor cable faults between congress units will affect the other units if “daisy-chain closed-loop” connection topology is selected. Ring connection, achieved by closing the loop of the daisy-chained units, increases system reliability. To obtain “daisy-chain” ring connection, just connect the last congress unit back to the CMU or the EMU with a CBL6PP extension cable (the cable features a 6P-DIN male connector at each end).

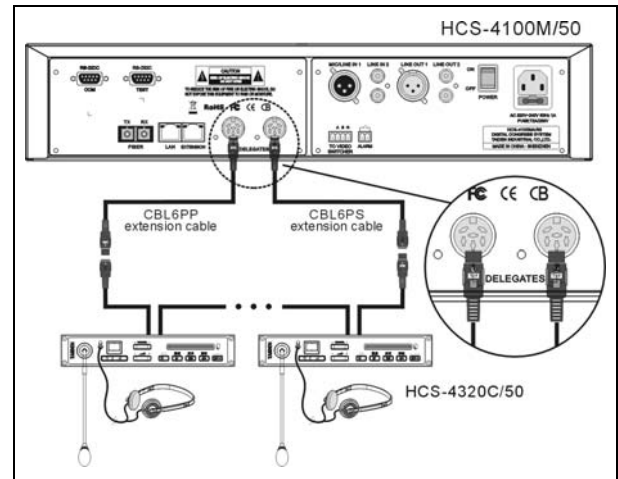


Figure 3.44 Ring connection between the CMU and L-series discussion units

3.7.3.2 Connection between congress units

All congress units of HCS-4100/50 FDCCS are daisy-chained easily and conveniently by dedicated 6P-DIN cables.

When connecting to another congress unit, just connect the 6P-DIN standard female connector on the 0.6-meter cable of the unit to the 6P-DIN standard male connector on the 1.5-meter cable of the next unit.

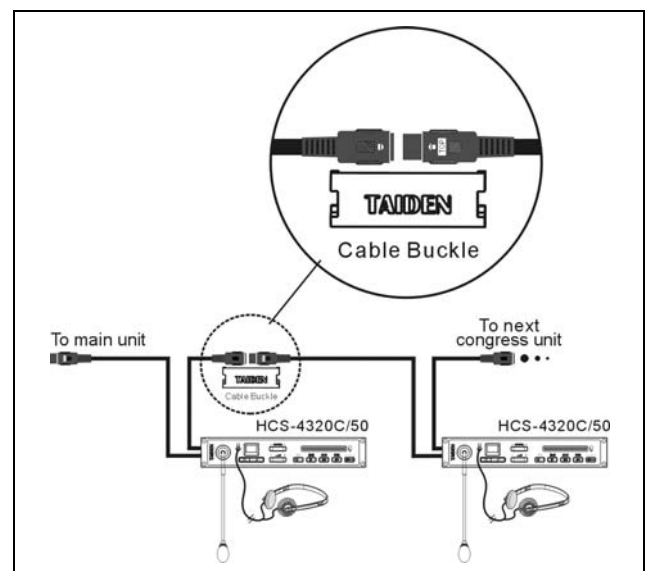
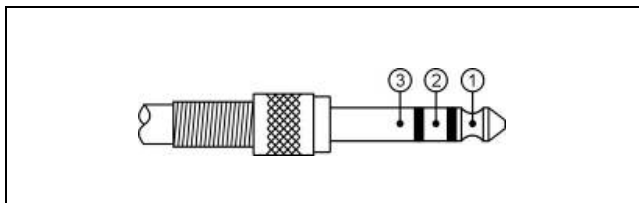


Figure 3.45 “Daisy-chain” connection between L-series discussion units

3.7.3.3 External earphone

An external earphone can be connected to the external earphone jack at the top of the congress unit. Its volume can be adjusted by the earphone volume control button. The external earphone shall have a Ø 3.5 mm plug, as the following figure:



Functions and indications:

- 1.....Left stereo channel signal
- 2.....Right stereo channel signal
- 3.....Power ground/Shield

3.7.4 Operation

Before a meeting starts, the congress units need to be configured by the operator, including: numbering and testing. During the meeting, the participants use the congress unit to sign-in, activate microphone, request to speak, vote, etc.

3.7.4.1 Delegate unit

We take HCS-4320D/50 as an example to introduce the operation of D-series discussion unit. The other discussion units of this series feature one or more of these functions.

1. Number

First of all, make sure that the congress units are connected properly to the CMU. All congress units must be numbered when the system is used for the first time or when adding or replacing congress units. The numbering function can be activated by menu operation on the CMU front panel or by application software.

Select "Number" by menu operation from the CMU, press the "MENU" key to confirm, following the system goes to numbering status. *"Press '1' key of all congress units one by one and repower"* will be displayed on the CMU LCD. The number indicating light of all connected congress units will blink. Press key "1" (microphone On/Off key for discussion unit) of all congress units one by one. The number indicating light will be deactivated. Once all congress units numbered, restart the CMU to update the number information.

Note:

☞ When numbering, please number the conference units one by one and do NOT press "number" key of several conference units at the same time.

2. Sign-in (application software needed)

To carry out voting, discussion units with voting and IC-Card reader and voting units should be registered via key press or IC-card. With application software, registration is available by choosing "Seat Sign-in".

- **Key-press sign-in** (HCS-4322/50 series does not have this function)

In key-press sign-in status, the indicating light on key "1" will blink, press key "1" to sign-in and the indicating light will be turned off.

- **IC card sign-in** (HCS-4321/50 series and HCS-4322/50 series do not have this function)

In IC card sign-in status, "Cd" will be displayed on the SI channel display. Insert the IC card correctly, the channel number "00" will be displayed. If the IC card is invalid or inserted incorrectly, "Er" will be displayed on the SI channel display. Please insert the IC card correctly or contact the technical support.

3. Speaking

The speaking mode is configured on the CMU. (refer to section 2.4)

A. "Open" mode

- Active microphone number limitation (1/2/3/4) **NOT reached:**

- a. The microphone On/Off key indicating light and the microphone illuminated light ring (red) will be activated at the same time as the microphone On/Off key is pressed. The speaker can give his/her speech;
- b. The microphone will be deactivated when the microphone On/Off key is pressed again. The microphone On/Off key indicating light and the microphone illuminated light ring will be deactivated.

- Active microphone number limitation (1/2/3/4) **reached:**

- a. The microphone On/Off key indicating light will blink and the microphone illuminated light ring (blue) will be activated when the key is pressed to request to speak;
- b. Press this key again to cancel the request to speak;
- c. When an active microphone is turned off, the first request microphone will be activated. At most 6 microphones can request to speak.

B. “Override” mode

■ Active microphone number limitation (1/2/3/4) **NOT reached:**

- a. The microphone On/Off key indicating light and the microphone illuminated light ring (red) will be activated at the same time as the microphone On/Off key is pressed. The speaker can give his/her speech;
- b. The microphone will be deactivated when the microphone On/Off key is pressed again. The microphone On/Off key indicating light and the microphone illuminated light ring will be deactivated.

■ Active microphone number limitation (1/2/3/4) **reached:**

If the microphone On/Off key is pressed, its microphone will be activated and the first activated microphone will be deactivated at the same time to maintain the active microphone number limitation.

C. “Voice” mode

■ Active microphone number limitation (1/2/3/4) **NOT reached:**

- a. The microphone On/Off key indicating light remains on. When the delegate speaks into the microphone at a short distance, the microphone will be activated. The microphone illuminated light ring will be activated;
- b. If the delegate does not speak for several seconds, the microphone will be deactivated automatically. The interval time can be adjusted at the main unit (refer to section 2.4);
- c. When the microphone is activated, pressing the microphone On/Off key turns it off.

■ Active microphone number limitation (1/2/3/4) **reached:**

All other microphones cannot be activated unless one of the active microphones is turned off.

D. “Apply” mode

- a. Request to speak function: when the microphone On/Off key is pressed, the microphone illuminated light ring (blue) will be activated. The chairman unit can approve or reject his/her request;

- b. When his/her request is approved, the microphone illuminated light ring will turn red, he/she can speak. Only one delegate is enabled to speak;
- c. When the active microphone number limitation is reached, none other delegate can request unless one of the active microphones is turned off.

E. “PTT” mode

■ Active microphone number limitation (1/2/3/4) **NOT reached:**

- a. Press and hold the microphone On/Off button to activate the microphone. The microphone active indicating light and the microphone On/Off button indicating light will turn red. The speaker can give his/her speech;
- b. The microphone will be deactivated when this button is released. The microphone active indicating light and the microphone On/Off button indicating light will be deactivated.

■ Active microphone number limitation (1/2/3/4) **reached:**

Press this key cannot activate the microphone until one of the activated microphones is switched off.

The speaking mode as well as the active microphone number limitation can be configured at the main unit. The chairman unit and the VIP unit do not count in the active microphone number limitation. At most 6 microphones can be activated at the same time in a system. VIP units can be assigned by application software – at most 32 VIP units.

A camera can focus an activated microphone automatically (camera position preset by application software). Speaker's video can be exported to and displayed on large screen(s).

4. Voting (HCS-4322/50 series does not have this function)

Voting can be originated by HCS-4100/50 application software.

- The voting button indicating lights of the congress unit start to blink, the delegate can press voting button to vote;

- For “First key-press valid” voting, the delegate can vote only once, and his/her voting indicating lights will be deactivated after his/her voting;
- For “Last key-press valid” voting, the delegate can change his/her vote. When the delegate voted, the indicating light of his voted key will be activated and all other indicating lights will be deactivated. About 1 second later, all indicating lights will blink again, and the delegate can change his/her vote. His/her last voted key will be valid.

5. Channel selector

- When the CMU is connected to interpretation unit(s), simultaneous interpretation function will work and the channel selector will be activated. To use the channel selector, an earphone must be plugged in. When the earphone is plugged, the backlight of the channel select display lights up. The delegate can select a suitable language to listen to by means of the channel selector.
- When the earphone is pulled out, the backlight of the channel select display will extinguish and the output will switch to floor audio channel.

6. Volume control

- When the earphone is plugged, its volume can be adjusted by the earphone volume control at the top of the unit.

7. VIP unit

- Any delegate unit can be assigned as a VIP unit by HCS-4100/50 application software. At most 32 VIP units can be assigned;
- As long as the active microphone number does not exceed 6 (including chairman/delegate/VIP), the microphone of the VIP unit can be activated freely;
- If the priority mode is configured as “All off”, all active delegate microphones will be turned off when the chairman presses his priority key, and all active VIP microphones will just be muted temporarily. They will restore when the chairman releases his priority key;
- If the active microphone number reached 6, the microphone illuminated light ring (blue) will be activated and the microphone On/Off key indicating light will blink when the microphone On/Off key is pressed. The microphone cannot be turned on unless one of the active microphones is deactivated.

3.7.4.2 Chairman unit

The chairman unit features all delegate unit functions and the following additional functions:

1. Priority

- If the priority mode on the main unit is configured as “All mute”, all active delegate and VIP microphones will be muted temporarily and the request-to-speak list will be purged when this key is pressed and they will restore when this key is released;
- If configured as “All off”, all active delegate microphones will be turned off and the request-to-speak list will be purged (in “Open” mode and “Apply” mode) when this key is pressed. All active VIP microphones will be muted temporarily when this key is pressed and they will restore when this key is released.

2. Speaking

- If the number of active microphones in the system is less than 6 (including chairman /delegate /VIP), the chairman can activate his/her microphone normally, the operation is the same as for the delegate unit (refer to section 3.7.4.1).
- If the number of active microphones in the system is 6, the chairman cannot activate his/her microphone. But he/she can use the “Priority” key to “All mute” or “All off” other microphones and give his/her speech.

3. Controlling delegate unit

A. Approve delegate unit's request to speak

Under “Apply” mode, when a delegate requests to speak, a ring tone will be emitted by the earphone of the chairman's unit.

The chairman can now approve the delegate's request and activate the delegate's microphone by pressing the microphone on/off key or reject the delegate's request by pressing the priority key.

Only one delegate can request to speak at one time.

B. Turn off or mute delegate microphone

The chairman can use the “Priority” key to execute “All mute” or “All off” operation.

4. Voting

The L-series chairman unit cannot originate voting without a PC:

- When controlled by application software, nominative or ballot voting are available;
- “First key-press valid” or “Last key-press valid” are available;
- Voting can be controlled by application software. Voting operation of the chairman unit and the delegate unit are identical. In this mode, voting can also be controlled by the chairman unit. “Start voting” indicating light on the chairman unit will blink. Voting starts once the chairman pressed the “Start voting” key.

3.8 HCS-4341A/B/50 (C-) series congress unit

3.8.1 Functions and indications

3.8.1.1 C-series congress unit

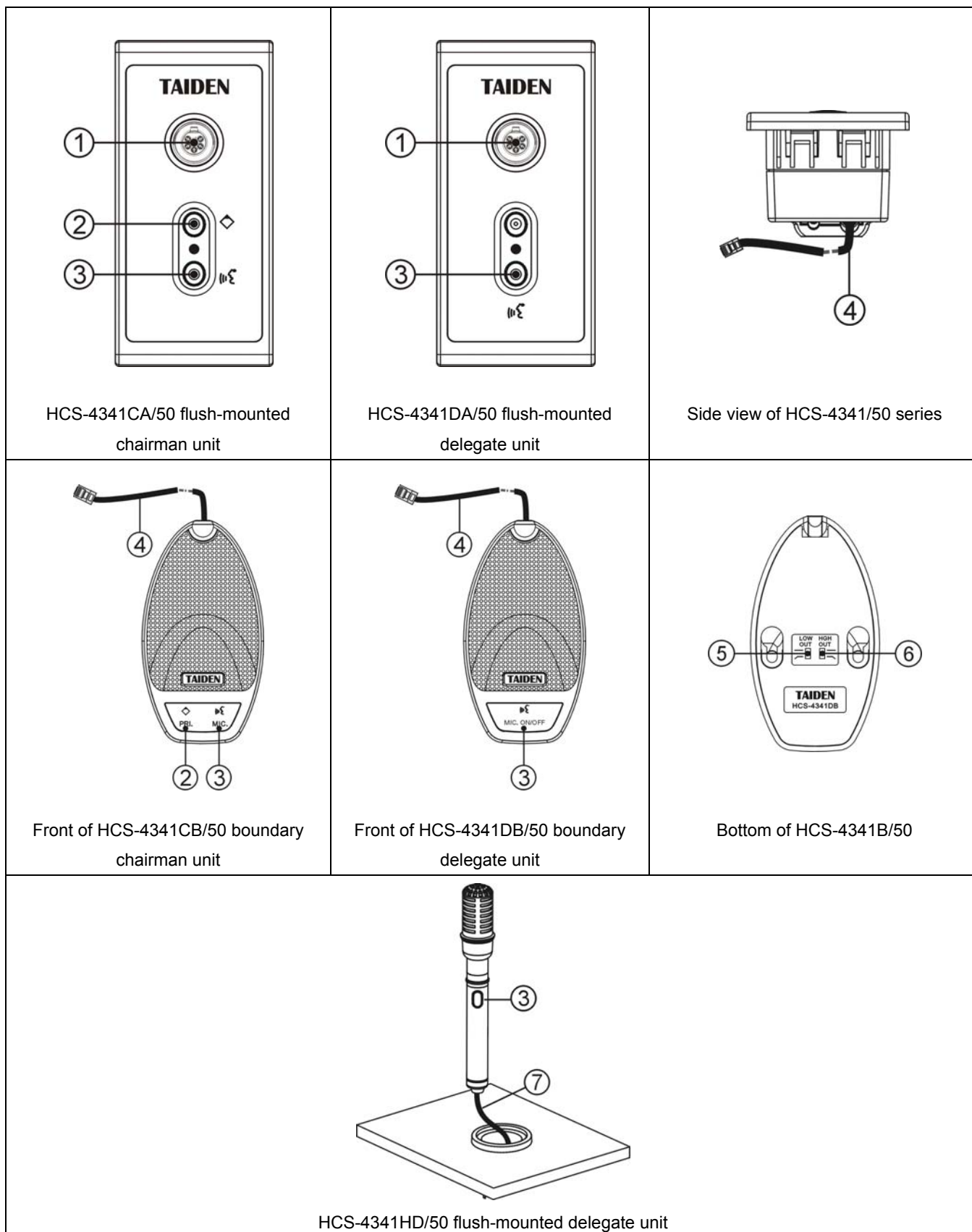


Figure 3.46 C-series congress units

◇ **Front:**

1. Microphone socket

2. Priority key with indicating light (for the chairman unit only):

- ◆ According to the priority mode configuration on the main unit:
 - ◇ If configured as “All mute”, all active delegate and VIP microphones will be muted temporarily when this key is pressed and they will resume when the key is released;
 - ◇ If configured as “All off”, all active delegate microphones will be switched off when this key is pressed. All active VIP microphones will be muted temporarily and will resume when the key is released.
- ◆ Under “OPEN” and “Apply” mode, pressing this key will clear the request list (deny all delegates’ requests to speak);
- ◆ If the chairman microphone is not active, pressing this key will activate it;
- ◆ If the ring tone mode is configured as “ON”, a ring tone will be produced when this key is pressed, and the indicating light of the priority key will be turned on.

3. Microphone On/Off key with indicating light (for the chairman unit)

Microphone/request key with indicating light (for the delegate unit):

- ◆ Chairman unit: press this key to activate the microphone and the indicating light;
- ◆ Delegate unit:
 - a. Under “OVERRIDE” mode, press this key to activate/deactivate the microphone and the indicating light;
 - b. Under “OPEN” mode,
 - When the number of active microphones does not reach the limitation, press this key to activate/deactivate the microphone. When the microphone is activated, the microphone On/Off button indicating light and the microphone lamp ring will change to red.
 - When the number of active microphones reaches the limitation, press this key to request/cancel the request to speak. When requesting to speak, the microphone On/Off button indicating light will blink in red, and the microphone lamp ring will change to blue;

c. Under “VOICE” mode,

- When not speaking, the microphone On/Off button indicating light remains on red;
- When speaking, the microphone On/Off button indicating light and the microphone lamp ring remain red;

d. Under “APPLY” mode,

- When the number of active microphones does not reach the limitation, press this key to request/cancel request to speak and the indicating light will blink when on “request”. The speaking request is approved or rejected by the chairman unit with control facility, only one delegate unit can request at the same time;
- When the number of active microphones reaches the limitation, none other delegate unit can request to speak, the speaking request is available once one of the activated microphones is switched off.

e. Under “PTT” mode,

- If the maximal number of active microphones is not reached, pressing and holding this key will activate the microphone, and the indicating light will be turned on; releasing the key after speech will turn off the microphone.
- If the maximal number of active microphones has been reached, pressing this key cannot activate the microphone until one of the activated microphones is switched off.

(Refer to section 3.8.4 for details)

◇ **Bottom:**

4. CAT5 cable with standard RJ45 plug, connecting to Mic of multi-function connector

5. Bass cut switch (switch down is on)

- ◆ 200 Hz, -3 dB

6. Treble cut switch (switch down is on)

- ◆ 8 kHz, -3 dB

7. Cable with a 6P mini DIN interface to connect to “Handheld Mic.” socket of multi-purpose connection unit

3.8.1.2 Multi-function connector

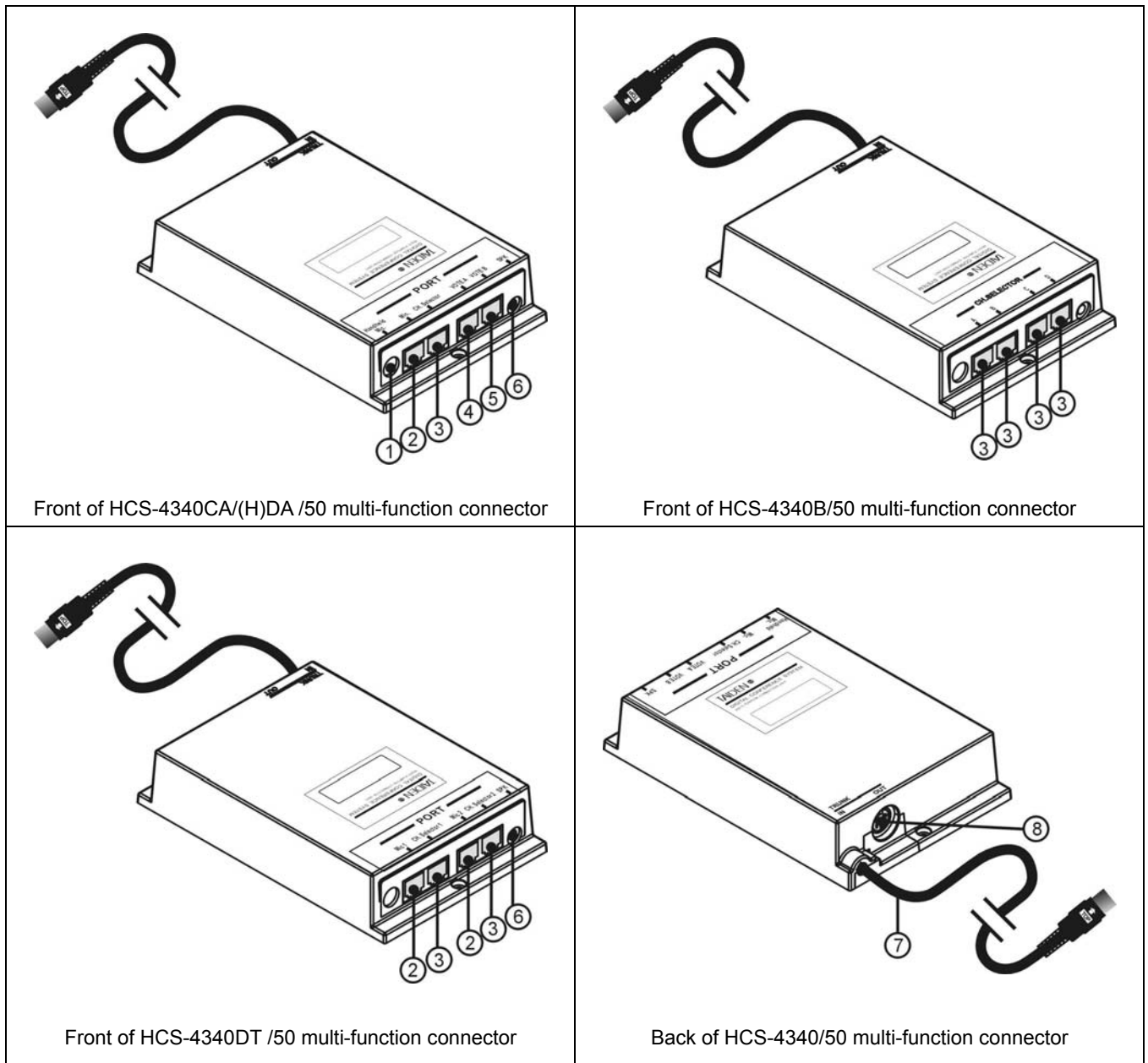


Figure 3.47 Multi-function connectors

◇ Front:

1. **Handheld Mic.** (Not for HCS-4340DA/50)
 - ◆ Handheld microphone jack
2. **Mic.** (Not for HCS-4340HDA/50)
 - ◆ Connecting to RJ45 socket of HCS-4341/50 or HCS-4841N/50
3. **CH. Selector**
 - ◆ Connecting to RJ45 socket of HCS-4842N/50
4. **VOTE A**
 - ◆ Connecting to RJ45 socket (VOTE A) of HCS-4843N/50 series voting unit
5. **VOTE B**
 - ◆ Connecting to RJ45 socket (VOTE B) of HCS-4843N/50 series voting unit

6. Loudspeaker jack

◇ Back:

7. **2.1-meter 6P-DIN cable with standard plug (male x 1)**
8. **6P-DIN cable standard socket (female x 1)**

3.8.2 Installation

3.8.2.1 Installation of HCS-4341A/50

- Cut a hole in the table according to the dimensions in figure 3.48;
- Drill $\varnothing 2$ mm holes on both sides of the fixing iron plate;
- Screw the fixing iron plate onto the table;
- Run the cable on the back of the discussion unit according to the mounting feasibilities existing on site;
- Put the congress unit into the hole.

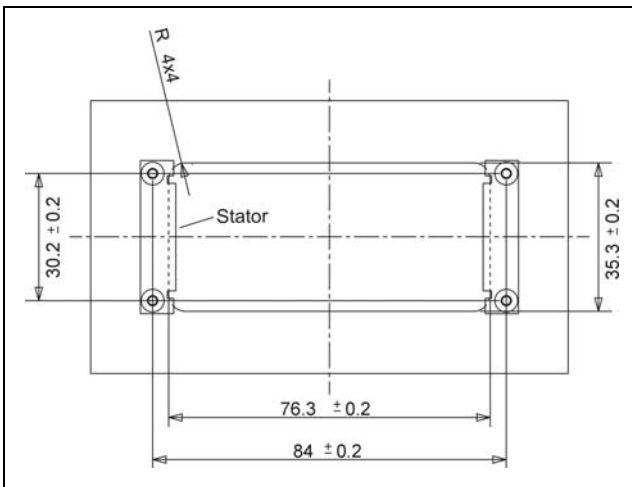


Figure 3.48 Positioning diagram of HCS-4341A/50

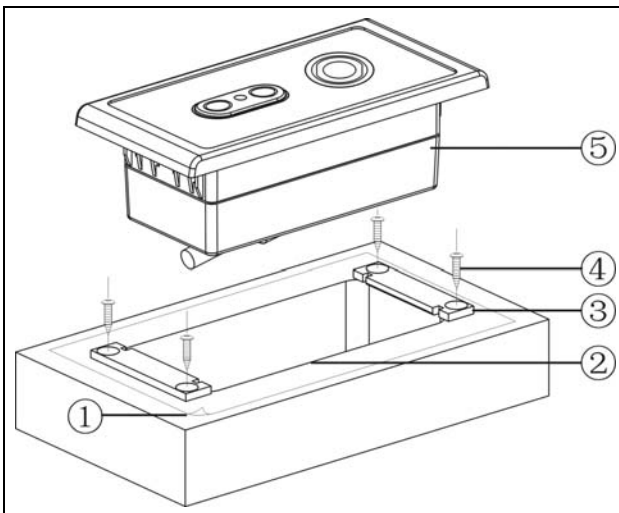


Figure 3.49 Installation diagram of HCS-4341A/50

3.8.2.2 Installation of HCS-4341HD/50

- Drill a $\varnothing 32$ mm hole;
- Put the cylindrical box into the hole and fix it with special pad and screwed ring;
- Put the cable of the handheld microphone over the hole of the cylindrical box and push the handheld microphone into the cylindrical box and buckle it.

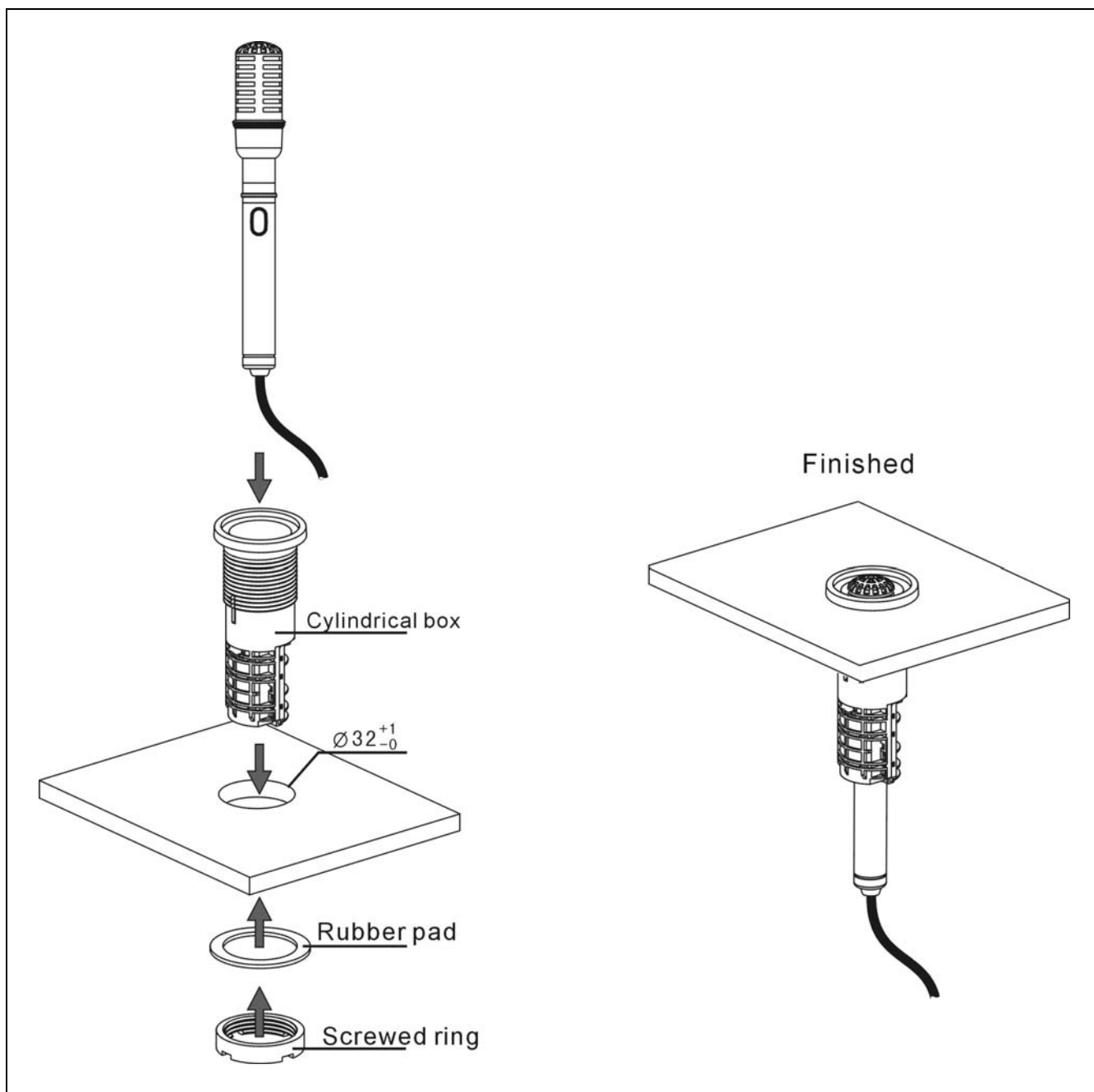


Figure 3.50 Installation diagram of flush-mounted handheld microphone (unit: mm)

3.8.3 Connection

3.8.3.1 Multi-function connector connected to the CMU or the EMU

When connecting to the CMU or the EMU, the C-series component congress unit shall be connected to the Multi-function connector, and the Multi-function connectors connected to the CMU or the EMU with the 6-PIN cable in a daisy-chain arrangement.

- One CMU has 2 outputs, and each output can be connected to 30 multi-function connectors. In total 60 multi-function connectors can be connected to one CMU;
- One HCS-4340CA/50 multi-function connector can be connected to one chairman discussion unit, one voting unit and one channel selector (for the descriptions of the interface of the multi-function connector please refer to section 3.8.1.2.);
- One HCS-4340DA/50 multi-function connector can be connected to one delegate discussion unit, one voting unit and one channel selector (for the descriptions of the interface of the multi-function connector please refer to section 3.8.1.2.);
- One HCS-4340B/50 multi-function connector can be connected to four channel selectors (for the descriptions of the interface of the multi-function connector please refer to section 3.8.1.2.);
- One HCS-4340DT/50 multi-function connector can be connected to two delegate discussion units and two channel selectors (for the descriptions of the interface of multi-function connector please refer to section 3.8.1.2.);
- The flush-mounted microphone can be connected to the multi-function connector with a dedicated cable. The IC card reader can be connected to the voting unit with a dedicated cable;

The HCS-4340/50 multi-function connector is equipped with a 2.1-meter cable with a standard 6P-DIN male connector. To connect to the HCS-4100/50 CMU or the HCS-8300 EMU, just connect the male connector of the first unit to the output of the main unit.

If there is a long distance between the congress unit and the CMU (EMU), CBL6PS extension cable can be used. One end is equipped with a 6P-DIN male connector and the opposite end with a female connector. Just connect the 6P-DIN female connector of the extension cable to the 6P-DIN male connector of

the 2.1-meter cable of the multi-function connector, and connect the 6P-DIN male connector of the extension cable to the output of the main unit.

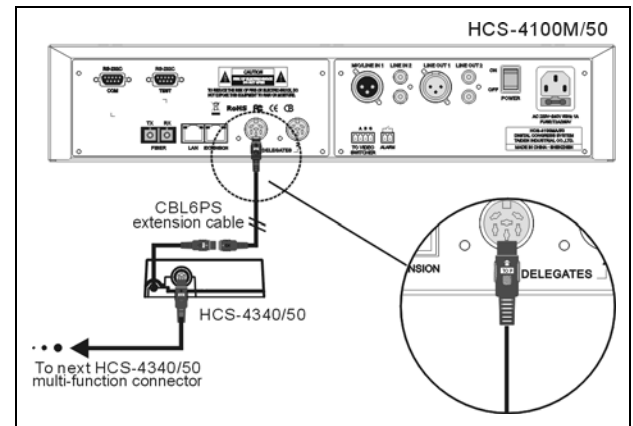


Figure 3.51 Multi-function connector connected to the CMU or the EMU

Neither the replacement of congress units nor cable faults between congress units will affect the other units if “daisy-chain closed-loop” connection topology is selected. Ring connection, achieved by closing the loop of the daisy-chained units, increases system reliability. To obtain “daisy-chain” ring connection, just connect the last congress unit back to the CMU or the EMU with a CBL6PP extension cable (the cable features a 6P-DIN male connector at each end).

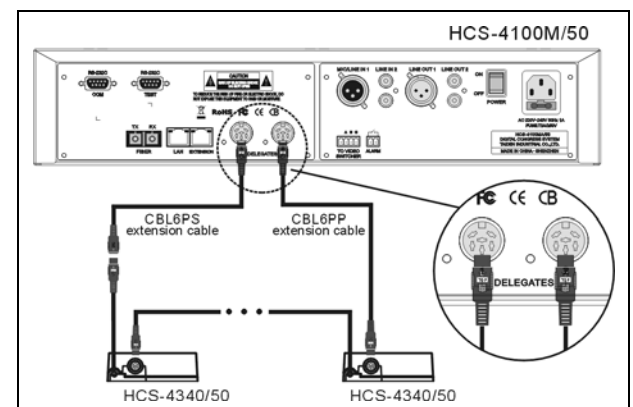


Figure 3.52 Ring connection between the CMU and multi-function connectors

3.8.3.2 Connections between multi-function connectors

All HCS-4340/50 multi-function connectors are daisy-chained easily and conveniently by dedicated 6P-DIN cables.

When connecting to another congress unit, just connect the 6P-DIN standard male connector on the 2.1-meter cable of the next multi-function connector to the female socket of this multi-function connector.

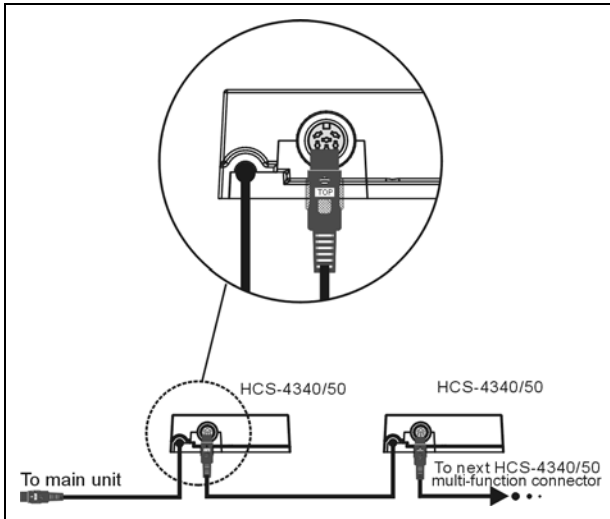


Figure 3.53 “Daisy-chain” connection between multi-function connectors

3.8.3.3 Multi-function connector connected to the C-series congress unit

The C-series congress unit is equipped with CAT5 cable with standard RJ45 plug. When connecting to the multi-function connector, just connect the RJ45 plug of the congress unit into the corresponding RJ45 socket of the multi-function connector. For the descriptions of the interface of the multi-function connector please refer to section 3.8.1.2.

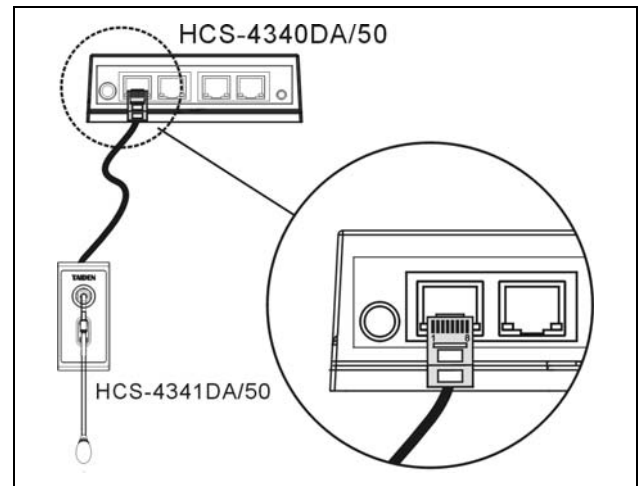


Figure 3.54 Multi-function connector connected to the C-series congress unit

3.8.4 Operation

Before a meeting starts, the congress units need to be configured by the operator, including: numbering and testing. During the meeting, the participants can use the congress unit to sign-in, activate microphone, request to speak, vote, etc.

3.8.4.1 Delegate unit

1. Number

First of all, make sure that all congress units are connected properly to the CMU. All congress units must be numbered when the system is used for the first time or when adding or replacing congress units. The numbering function can be activated by menu operation on the CMU front panel or by application software.

Select "Number" by menu operation from the CMU, press the "MENU" key to confirm, following the system goes to numbering status. *"Press '1' key of all congress units one by one and repower"* will be displayed on the CMU LCD. The number indicating light of all connected congress units will blink. Press the microphone On/Off key of all congress units one by one. The number indicating light will be deactivated. Once all congress units numbered, restart the CMU to update the number information.

Note:

- ☞ When numbering, please number the conference units one by one and do NOT press "number" key of several conference units at the same time.

2. Speaking

The speaking mode is configured on the CMU. (refer to section 2.4)

A. "Open" mode

- Active microphone number limitation (1/2/3/4) **NOT reached:**
 - a. The microphone On/Off key indicating light and the microphone illuminated light ring (red) will be activated at the same time as the microphone On/Off key is pressed. The speaker can give his/her speech;

- b. The microphone will be deactivated when the microphone On/Off key is pressed again. The microphone On/Off key indicating light and the microphone illuminated light ring will be deactivated.

■ Active microphone number limitation (1/2/3/4) **reached:**

- a. The microphone On/Off key indicating light and the microphone illuminated light ring (red) will blink when key is pressed to request to speak;
- b. Press this key again to cancel request to speak;
- c. When an active microphone is turned off, the first request microphone will be activated. At most 6 microphones can request to speak.

B. "Override" mode

■ Active microphone number limitation (1/2/3/4) **NOT reached:**

- a. The microphone On/Off key indicating light and the microphone illuminated light ring (red) will be activated at the same time as the microphone On/Off key is pressed. The speaker can give his/her speech;
- b. The microphone will be deactivated when the microphone On/Off key is pressed again. The microphone On/Off key indicating light and the microphone illuminated light ring will be deactivated.

■ Active microphone number limitation (1/2/3/4) **reached:**

If the microphone On/Off key is pressed, its microphone will be activated and the first activated microphone will be deactivated at the same time to maintain the active microphone amount limitation.

C. "Voice" mode

■ Active microphone number limitation (1/2/3/4) **NOT reached:**

- a. The microphone On/Off key indicating light remains on. When the delegate speaks into the microphone at a short distance, the microphone will be activated. The microphone illuminated light ring (red) will be activated;

- b. If the delegate does not speak for several seconds, the microphone will be deactivated automatically. The interval time can be adjusted from the main unit (refer to section 2.4);
- c. When the microphone is activated, pressing the microphone On/Off key turns it off.

- Active microphone number limitation (1/2/3/4) **reached:**
All other microphones cannot be activated unless one of the active microphones is turned off.

D. “Apply” mode

- a. Request to speak function: when the microphone On/Off key is pressed, the microphone illuminated light ring (blue) will be activated. The chairman unit can approve or reject his/her request;
- b. When his/her request is approved, the microphone illuminated light ring will turn red, he/she can speak. If not connected to PC software, only one delegate unit can request at the same time. Otherwise, the number of requests can be configured from the software;
- c. When the active microphone number limitation is reached, none other delegate can request unless one of the active microphones is turned off.

E. “PTT” mode

- Active microphone number limitation (1/2/3/4) **NOT reached:**
 - a. Press and hold the microphone On/Off button to activate the microphone, the microphone active indicating light and the microphone On/Off button indicating light will turn red. The speaker can give his/her speech;
 - b. The microphone will be deactivated when this button is released. The microphone active indicating light and the microphone On/Off button indicating light will be deactivated.
- Active microphone number limitation (1/2/3/4) **reached:**
Press this key cannot activate the microphone until one of the activated microphones is switched off.

The speaking mode as well as the active microphone number limitation can be configured at the main unit. The chairman unit and the VIP unit do not count in the active microphone number limitation. At most 6 microphones can be activated at the same time in a system. VIP units can be assigned by application software - at most 32 VIP units.

A camera can focus an activated microphone automatically (camera position preset by application software). Speaker's video can be exported to and displayed on large screen(s).

5. VIP unit

- Any delegate unit can be assigned as VIP unit by HCS-4100/50 application software. At most 32 VIP units can be assigned;
- As long as the active microphone number does not exceed 6 (including chairman/delegate/VIP), the microphone of the VIP unit can be activated freely;
- If the priority mode is configured as “All off”, all active delegate microphones will be turned off when the chairman presses his priority key, and all active VIP microphones will just be muted temporarily. They will restore when the chairman releases the priority key;
- If the active microphone number reached 6, the microphone On/Off key indicating light will blink when the microphone On/Off key is pressed and its microphone cannot be turned on unless one of the active microphones is deactivated.

3.8.4.2 Chairman unit

The chairman unit features all delegate functions, and the following additional functions:

1. Priority

- If the priority mode on the main unit is configured as “All mute”, all active delegate and VIP microphones will be muted temporarily and the request-to-speak list will be purged when this key is pressed and they will restore when this key is released;
- If configured as “All off”, all active delegate microphones will be turned off and the request-to-speak list will be purged (in “Open” mode and “Apply” mode) when this key is pressed, and all active VIP microphones will be muted temporarily when this key is pressed and they will restore when this key is released.

2. Speaking

- If the number of active microphones in the system is less than 6 (including chairman/delegate/VIP), the chairman can activate his/her microphone normally, the operation is the same as for the delegate unit (refer to section 3.8.4.1).
- If the number of active microphones in the system is 6, the chairman cannot activate his/her microphone. But he/she can use the “Priority” key to “All mute” or “All off” other microphones and give his/her speech.

3. Controlling delegate unit

A. Approve delegate unit's request to speak

Under “Apply” mode, when a delegate requests to speak, a ring tone will be emitted by the earphone of the chairman's unit.

The chairman can now approve delegate's request and activate delegate's microphone by pressing the microphone on/off key or reject delegate's request by pressing the priority key.

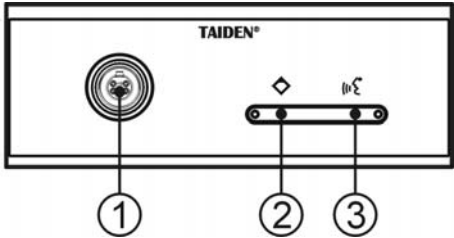
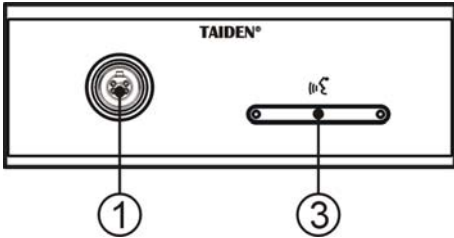
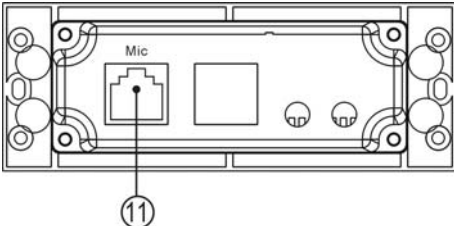
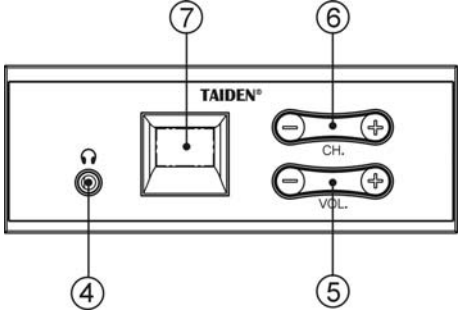
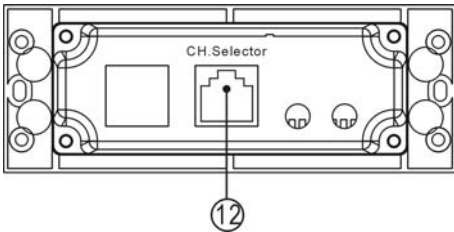
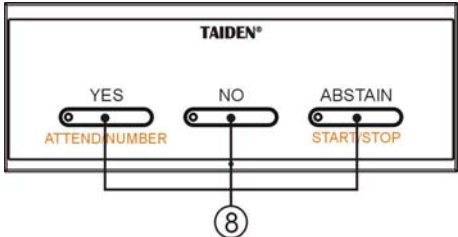
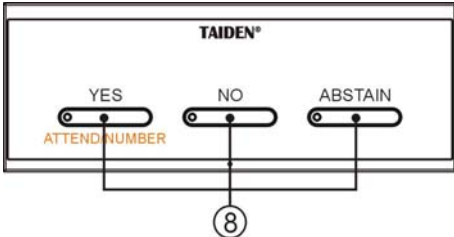
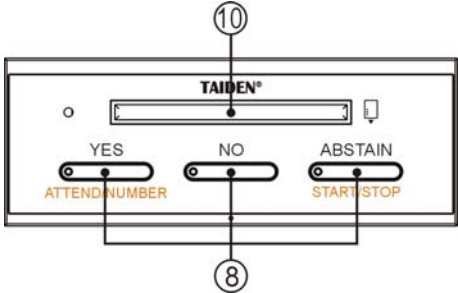
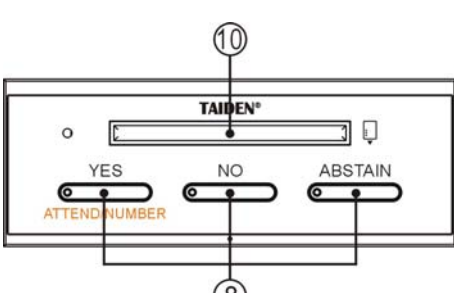
Only one delegate can request to speak at one time and a ring tone will also be emitted by the earphone.

B. Turn off or mute delegate microphone

The chairman can use the “Priority” key to execute “All mute” or “All off” operation.

3.9 HCS-4841/42/43 (N-) series congress unit

3.9.1 Functions and indications

 HCS-4841NC/50 flush-mounted chairman unit	 HCS-4841ND/50 flush-mounted delegate unit
 Bottom of HCS-4841N/50 series	
 HCS-4842N/50 flush-mounted channel selector	 Bottom of HCS-4842N/50 flush-mounted channel selector
 HCS-4843NCTE/50 flush-mounted chairman voting unit	 HCS-4843NDTE/50 flush-mounted delegate voting unit
 HCS-4843NCTKE/50 flush-mounted chairman voting unit	 HCS-4843NDTKE/50 flush-mounted delegate voting unit

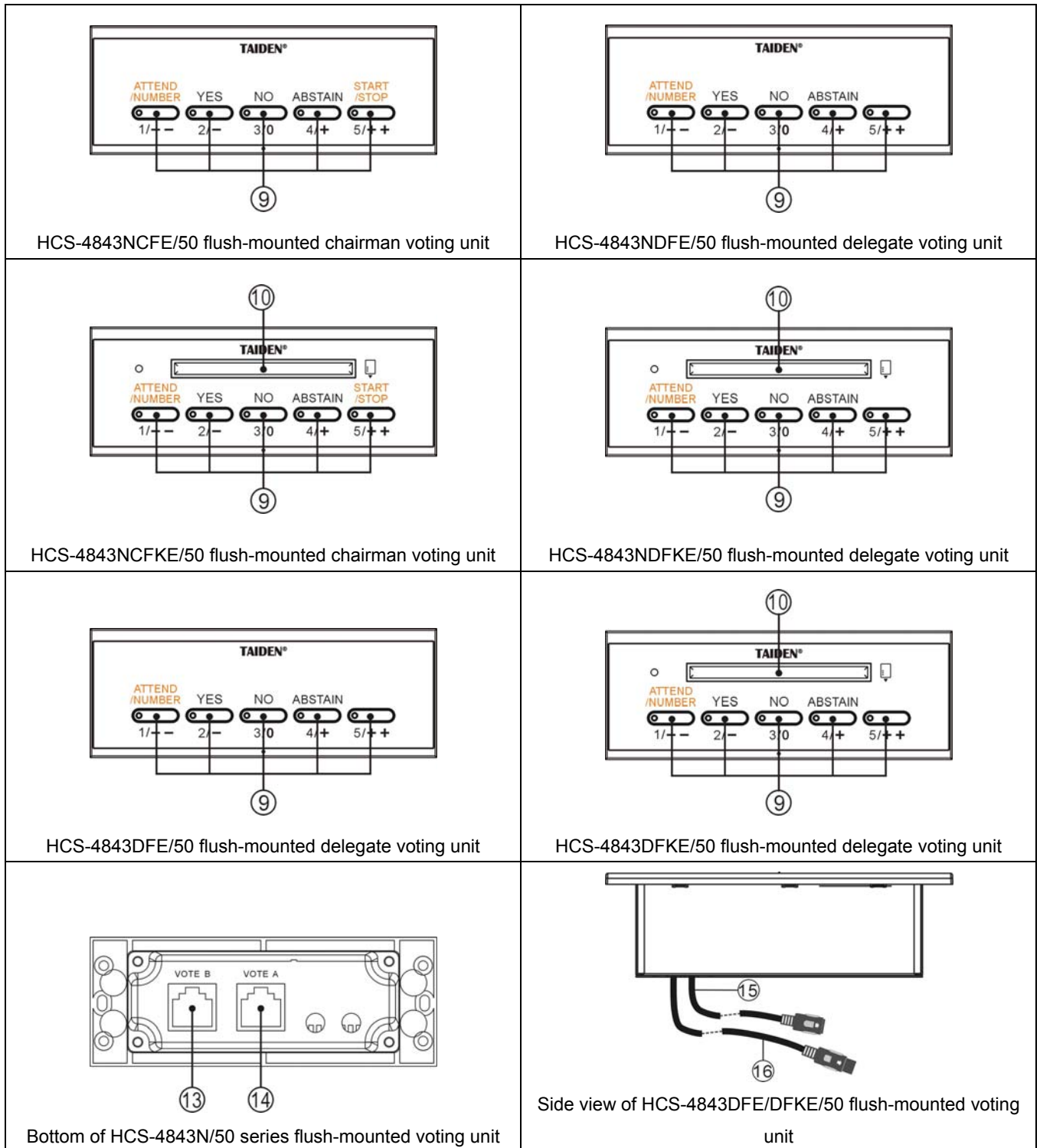


Figure 3.55 N-series congress units

3.9.1.1 Front

1. Microphone socket

2. Priority key with indicating light (for the chairman unit only):

- ◆ According to the priority mode configuration on the main unit:

- ◇ If configured as “All mute”, all active delegate and VIP microphones will be muted temporarily when this key is pressed and they will resume when the key is released;

- ◇ If configured as “All off”, all active delegate microphones will be switched off when this key is pressed. All active VIP microphones will be muted temporarily and will resume when the key is released.

- ◆ Under “OPEN” and “Apply” mode, pressing this key will clear the request list (deny all delegates’ requests to speak);
- ◆ If the chairman microphone is not active, pressing this key will activate it;

- ♦ If the ring tone mode is configured as “ON”, a ring tone will be produced when this key is pressed, and the indicating light of the priority key will be turned on.

3. Microphone On/Off key with indicating light (for the chairman unit)

Microphone/request key with indicating light (for the delegate unit):

- ♦ Chairman unit: press this key to activate the microphone and the indicating light;
- ♦ Delegate unit:
 - Under “OVERRIDE” mode, press this key to activate/deactivate the microphone and the indicating light;
 - Under “OPEN” mode,
 - When the number of active microphones does not reach the limitation, press this key to activate/deactivate the microphone. When the microphone is activated, the microphone On/Off button indicating light and the microphone lamp ring will change to red.
 - When the number of active microphones reaches the limitation, press this key to request/cancel the request to speak. When requesting to speak, the microphone On/Off button indicating light will blink in red, and the microphone lamp ring will change to blue;
 - Under “VOICE” mode,
 - When not speaking, the microphone On/Off button indicating light remains on red;
 - When speaking, the microphone On/Off button indicating light and the microphone lamp ring remain red;
 - Under “APPLY” mode,
 - When the number of active microphones does not reach the limitation, press this key to request/cancel request to speak and the indicating light will blink when on “request”. The speaking request is approved or rejected by the chairman unit with control facility, only one delegate unit can request at the same time;
 - When the number of active microphones reaches the limitation, none other delegate unit can request to speak, speaking request is available once one of the activated microphones is switched off.

e. Under “PTT” mode,

- If the maximal number of active microphones is not reached, pressing and holding this key will activate the microphone, and the indicating light will be turned on; releasing the key after speech will turn off the microphone.
- If the maximal number of active microphones has been reached, pressing this key cannot activate the microphone until one of the activated microphones is switched off.

(Refer to section 3.9.4 for details)

4. Earphone jack (Ø 3.5 mm)

5. Earphone volume control

6. Simultaneous interpretation channel selector

- ♦ Available when the earphone is plugged

7. Simultaneous interpretation channel number display

8. 3 voting keys and indicating lights

- “ATTEND/NUMBER/YES”

- In numbering mode, the numbering indicating light will blink, press this key to number;
- In sign-in mode, the sign-in indicating light will blink, press this key to sign-in;
- In voting mode, the voting indicating light will blink, and press this key to vote for “Yes”.

- “NO”

In voting mode, the voting indicating light will blink, and press this key to vote for “No”.

- “START/STOP/ABSTAIN”

- In voting mode, the voting indicating light will blink, and press this key to vote for “Abstain”;
- For the chairman unit: if the system is connected to a PC and if the application software is setup for voting control mode by chairman control, this key will blink when clicking the “Start voting” button in the voting interface of the application software. The chairman can press this key to enter voting status. Once the chairman voted, the indicating light of this key will blink again. After confirmation that all delegates voted, the chairman presses this key to close voting. Application software will calculate the voting results.

9. 5 voting keys with indicating lights

◆ Sign-in/Number/Option1/Response-- Key ("ATTEND/NUMBER/1/--")

- In key-press sign-in mode, the sign-in indicating light will blink, press this key to sign-in;
- In voting mode (Multiple choice/Opinion poll), the voting indicating light will blink, press this key to vote for option 1;
- In voting mode (Audience response/Rating), the voting indicating light will blink, press this key to vote for 0 ("-").

◆ Yes/Option 2/Response - Key ("YES/2/-")

- In voting mode (Parliamentary), the voting indicating light will blink, press this key to vote for "Yes";
- In voting mode (Multiple choice/Opinion poll), the voting indicating light will blink, press this key to vote for option 2;
- In voting mode (Audience response/Rating), the voting indicating light will blink, press this key to vote for 25 ("-").

◆ No/Option 3/Response 0 Key ("NO/3/0")

- In voting mode (Parliamentary), the voting indicating light will blink, press this key to vote for "No";
- In voting mode (Multiple choice/Opinion poll), the voting indicating light will blink, press this key to vote for option 3;
- In voting mode (Audience response/Rating), the voting indicating light will blink, press this key to vote for 50 ("0").

◆ Abstain/Option 4/Response + Key ("ABSTAIN/4/+")

- In voting mode (Parliamentary), the voting indicating light will blink, press this key to vote for "Abstain";
- In voting mode (Multiple choice/Opinion poll), the voting indicating light will blink, press this key to vote for option 4;
- In voting mode (Audience response/Rating), the voting indicating light will blink, press this key to vote for 75 ("+").

◆ Start/Stop/Option 5/Response ++ Key ("START/STOP/5/++")

- In voting mode (Multiple choice/Opinion poll), the voting indicating light will blink, press this key to vote for option 5;
- In voting mode (Audience response/Rating), the voting indicating light will blink, press this key to vote for 100 ("++");
- Chairman unit: if the system is connected to a PC and if application software is setup for voting control mode by chairman control, key "5" will blink when clicking the "Start voting" button in the voting interface of the application software. The chairman can press this key to enter the voting status. Once the chairman voted, the indicating light will blink again. After confirmation that all delegates voted, the chairman pushes key "5" to close voting. Application software will calculate the voting results.

10. IC card socket

3.9.1.2 Bottom

- Standard RJ45 socket, connecting to Mic. of multi-function connector**
- Standard RJ45 socket, connecting to CH. Selector of multi-function connector**
- Standard RJ45 socket, connecting to VOTE B of multi-function connector**
- Standard RJ45 socket, connecting to VOTE A of multi-function connector**
- 0.6-meter 6P-DIN cable with standard plug (female x 1)**
- 1.5-meter 6P-DIN cable with standard plug (male x 1)**

3.9.2 Installation

3.9.2.1 Installation of N-series congress unit

■ Stand-alone installation

- Cut holes in the table according to the positioning diagram (figure 3.57);
- Put the congress unit with the cables into the hole. Fix the unit with the black M3 Phillips screws (figure 3.58);
- Stick PVC to it.

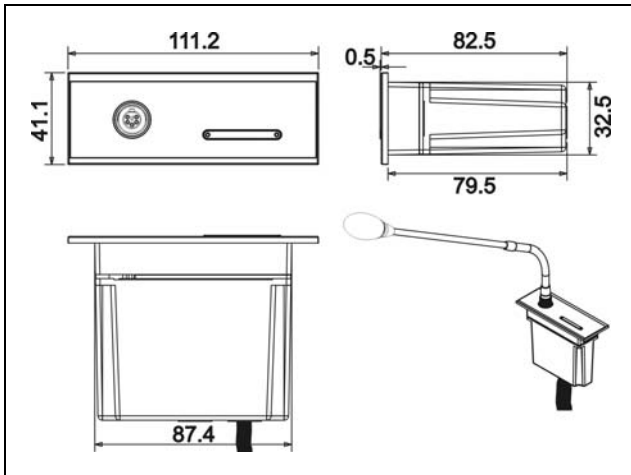


Figure 3.56 Dimension diagram of N-series congress unit
(unit: mm)

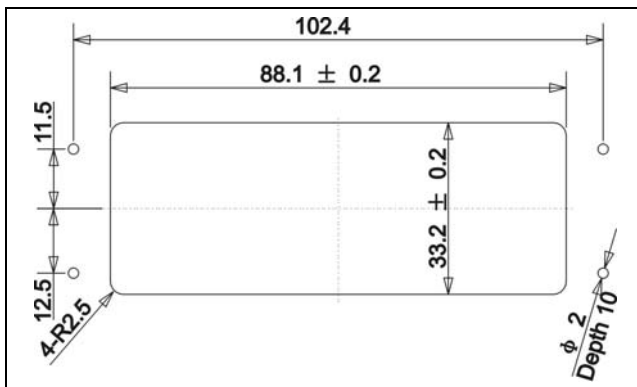


Figure 3.57 Positioning diagram of N-series congress unit
(unit: mm)

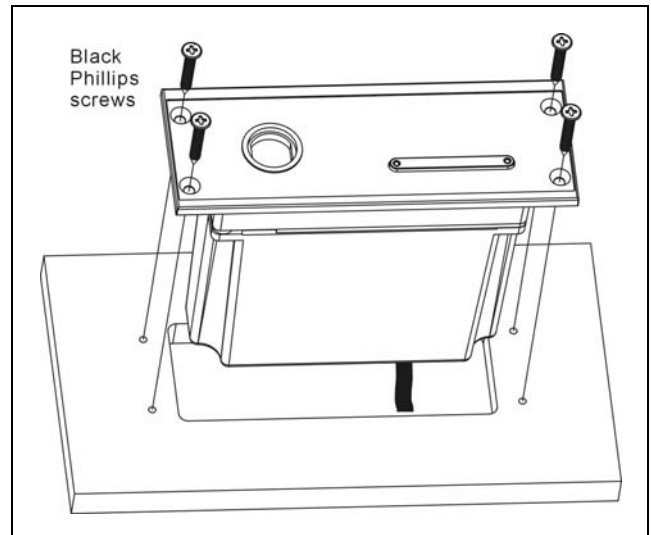


Figure 3.58 Installation diagram of N-series congress unit
(unit: mm)

■ Assembly installation

- Cut holes in the table for the first unit according to the positioning diagram (figure 3.57);
- Make sure that the distance between the center of the two adjacent holes is 111.4 mm (Figure 3.59), and repeat step a to cut holes for the adjacent unit(s);
- Put the congress units into the holes, with the cables, according to the mounting feasibilities existing on site. Fix with black M3 Phillips screws;
- Stick PVC to each unit.

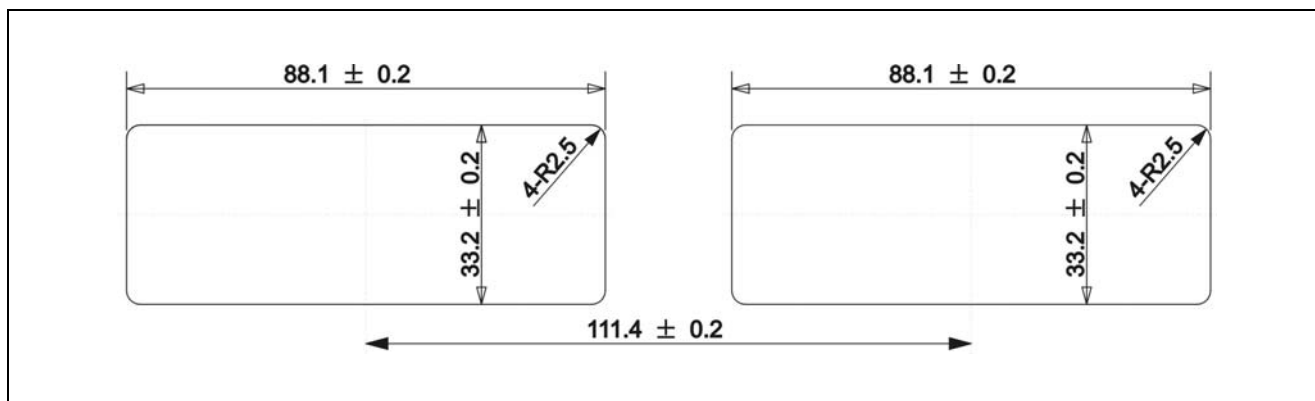


Figure 3.59 Positioning and assembly installation diagram of several N series congress units (unit: mm)

3.9.2.2 Installation of terminating panels for N-series congress unit

- Put the terminating panel marked "L" at the left side and align it with the installed congress unit. Fix it with the black M3 Phillips screws;
- Put the terminating panel marked "R" at the right side and align it with the installed congress unit. Fix it with the black M3 Phillips screws;
- Stick PVC to them.

Note:

- Embedded decorative label must be ordered separately ;
- If needed, protective covers with different dimensions can also be ordered separately according to actual installation.

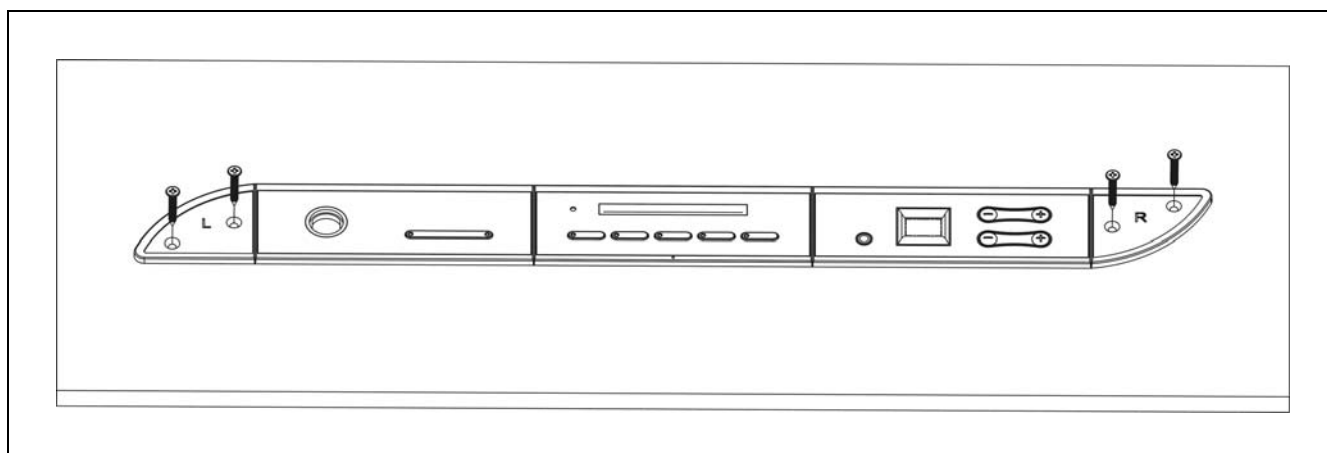


Figure 3.60 Installation diagram of the N-series terminating panels

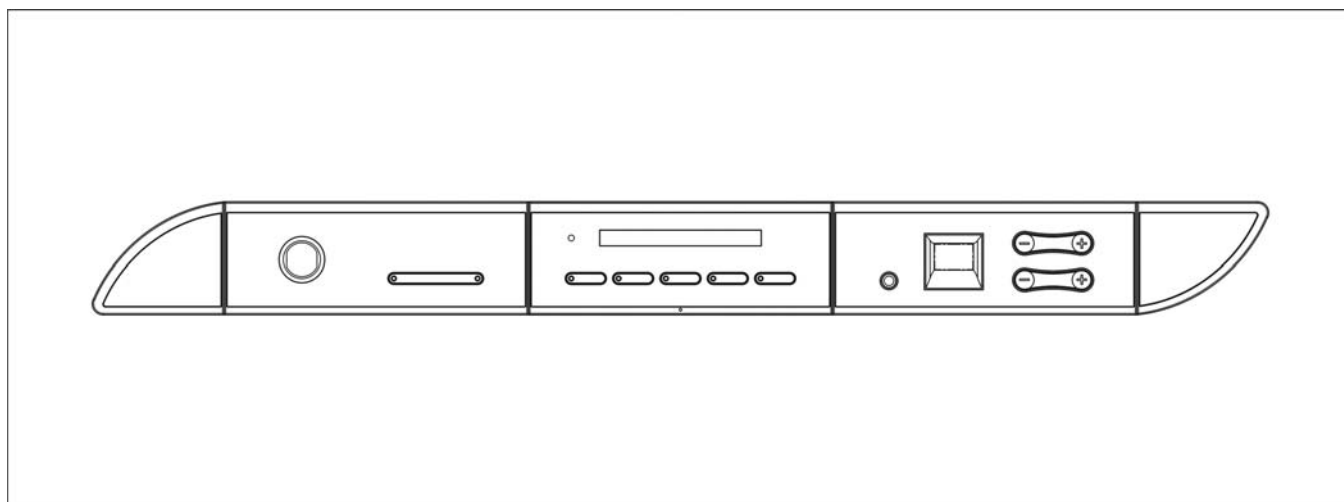


Figure 3.61 Diagram showing the finished installation of the N series congress units

3.9.2.3 Flush-mounted loudspeaker of N-series congress unit

- a. Cut holes in the table according to positioning diagram (figure 3.62);

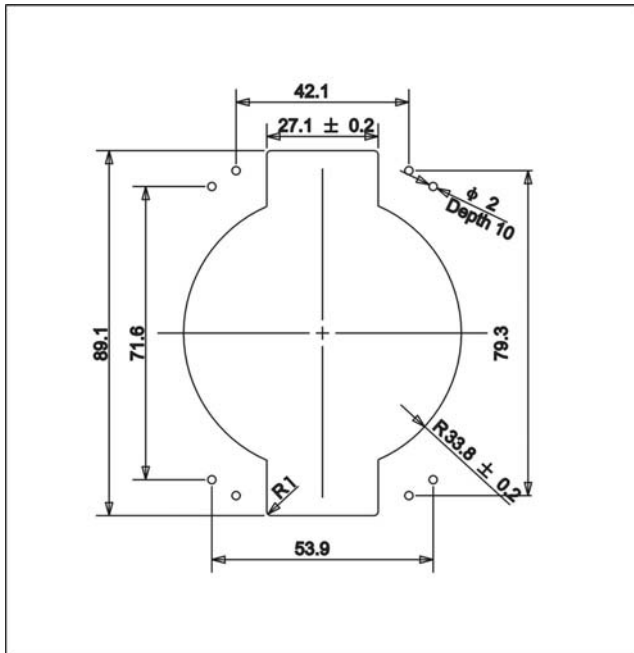


Figure 3.62 Positioning diagram of N-series congress unit speaker (unit: mm)

- b. Align the fixing plates of the loudspeaker to the auxiliary installation shell and put them into the hole;
c. Fix the fixing plates with M3 screws;

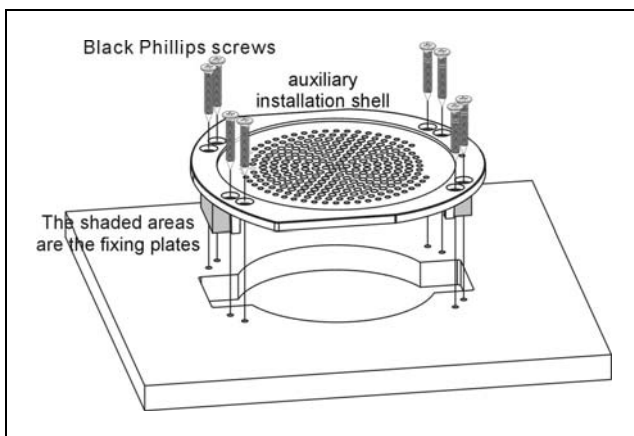


Figure 3.63 Installation diagram of the fixing plates of the N-series congress unit loudspeaker

- d. Take off the auxiliary installation shell;

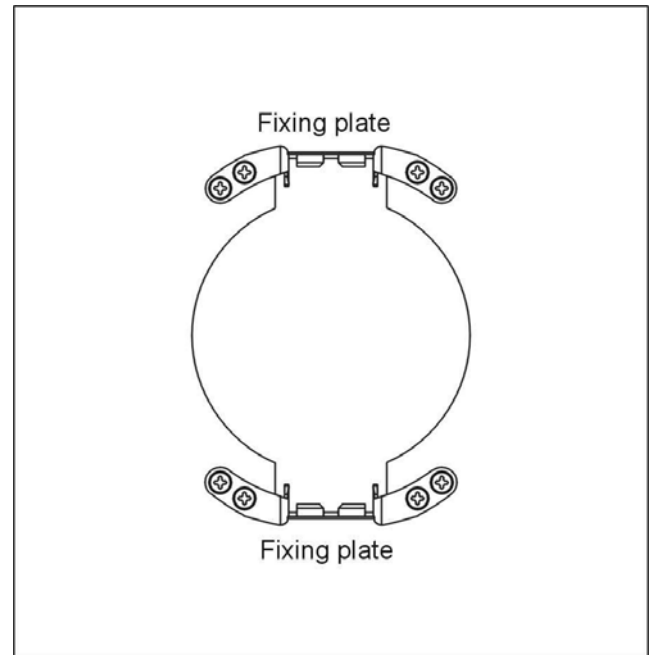


Figure 3.64 Diagram of the finished installation of the fixing plates of the N-series congress unit loudspeaker

- e. Put the flush-mounted loudspeaker into the fixing plates and buckle it.

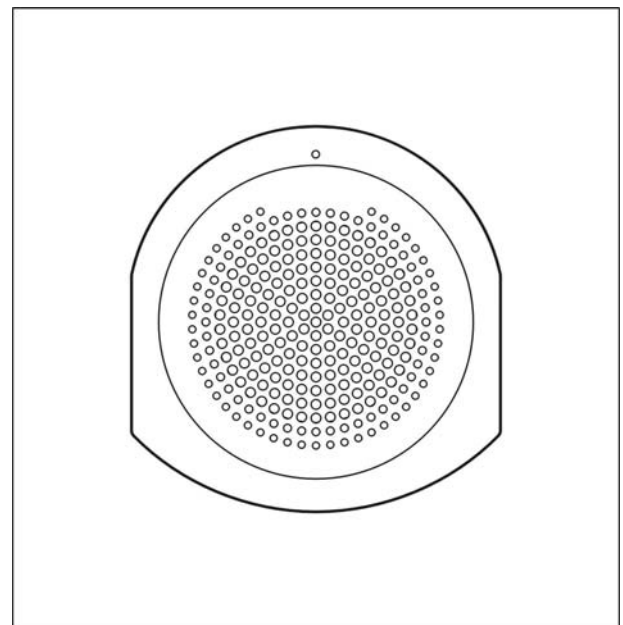


Figure 3.65 Diagram of the finished installation of the N-series congress unit loudspeaker

3.9.3 Connection

3.9.3.1 Multi-function connector connected to the CMU or the EMU

When connecting to the CMU or the EMU, the N-series component congress unit (except HCS-4843DFE/DFKE/50) must be connected to the multi-function connector, and the multi-function connectors connected to the CMU or the EMU in a daisy-chain arrangement with the 6-PIN cable. HCS-4843DFE/DFKE/50 can be connected directly to the CMU or the EMU in a daisy-chain arrangement with the 6-PIN cable.

- One CMU has 2 outputs, and each output can be connected to 30 multi-function connectors. In total 60 multi-function connectors can be connected to one CMU;

- One HCS-4340CA/50 multi-function connector can be connected to one chairman discussion unit, one voting unit and one channel selector (for the descriptions of the interface of the multi-function connector please refer to section 3.8.1.2.);

- One HCS-4340DA/50 multi-function connector can be connected to one delegate discussion unit, one voting unit and one channel selector (for the descriptions of the interface of the multi-function connector please refer to section 3.8.1.2.);

- One HCS-4340B/50 multi-function connector can be connected to four channel selectors (for the descriptions of the interface of the multi-function connector please refer to section 3.8.1.2.);

- One HCS-4340DT/50 multi-function connector can be connected to two delegate discussion units and two channel selectors (for the descriptions of the interface of the multi-function connector please refer to section 3.8.1.2.);

- The flush-mounted microphone can be connected to the multi-function connector with a dedicated cable. The IC card reader can be connected to the voting unit with a dedicated cable;

HCS-4340/50 multi-function connector is equipped with a 2.1-meter cable with a standard 6P-DIN male connector. To connect to the HCS-4100/50 CMU or the HCS-8300 EMU, just connect the male connector of the first unit to the output of the main unit.

If there is a long distance between the congress unit and the CMU (EMU), CBL6PS extension cable can be used. One end is equipped with a 6P-DIN male connector and the opposite end with a female connector. Just connect the 6P-DIN female connector of the extension cable to the 6P-DIN male connector of the 2.1-meter cable of the multi-function connector, and connect the 6P-DIN male connector of the extension cable to the output of the main unit.

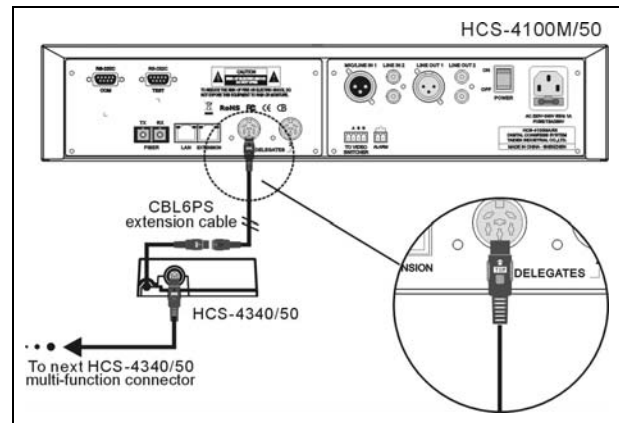


Figure 3.66 Multi-function connector connected to the CMU or the EMU

Neither the replacement of congress units nor cable faults between congress units will affect the other units if “daisy-chain closed-loop” connection topology is selected. Ring connection, achieved by closing the loop of the daisy-chained units, increases system reliability. To obtain “daisy-chain” ring connection, just connect the last congress unit back to the CMU or the EMU with a CBL6PP extension cable (the cable features a 6P-DIN male connector at each end).

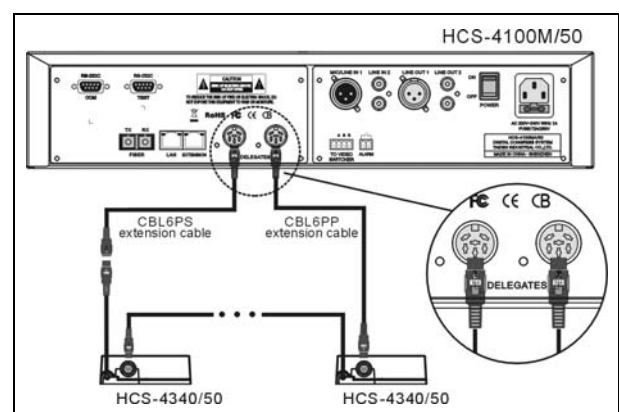


Figure 3.67 Ring connection between the CMU and multi-function connectors

3.9.3.2 Connections between multi-function connectors

All HCS-4340/50 multi-function connectors are daisy-chained easily and conveniently by dedicated 6P-DIN cables.

When connecting to another congress unit, just connect the 6P-DIN standard male connector on the 2.1-meter cable of the next multi-function connector to the female socket of this multi-function connector.

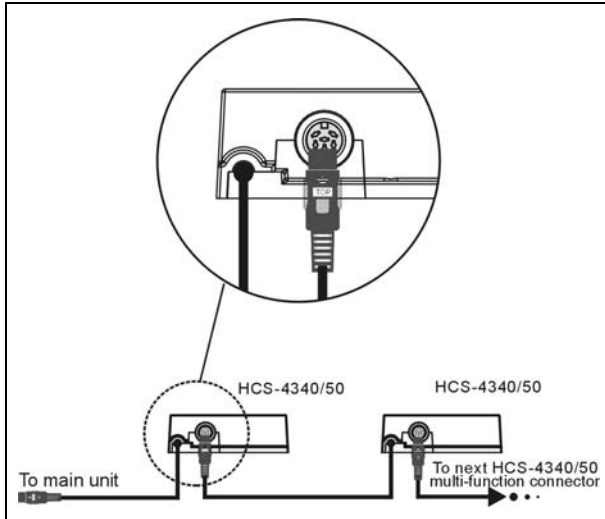


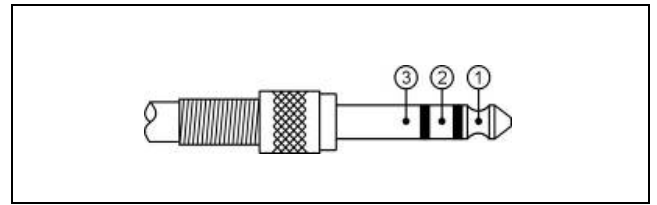
Figure 3.68 “Daisy-chain” connection between multi-function connectors

3.9.3.3 Multi-function connector connected to the N-series congress unit

The N-series congress unit is equipped with a standard RJ45 socket. When connecting to the multi-function connector, just use CAT5 cable with standard RJ45 plugs to connect the RJ45 socket of the congress unit into the corresponding RJ45 socket of the multi-function connector (figure 3.69). For the descriptions of the interface of the multi-function connector please refer to section 3.8.1.2.

3.9.3.4 External earphone

An external earphone can be connected to the external earphone jack at the top of the congress unit. Its volume can be adjusted by the earphone volume control button. The external earphone shall have Ø 3.5 mm plug, as the following figure:



Functions and indications:

- 1.....Left stereo channel signal
- 2.....Right stereo channel signal
- 3.....Power ground/Shield

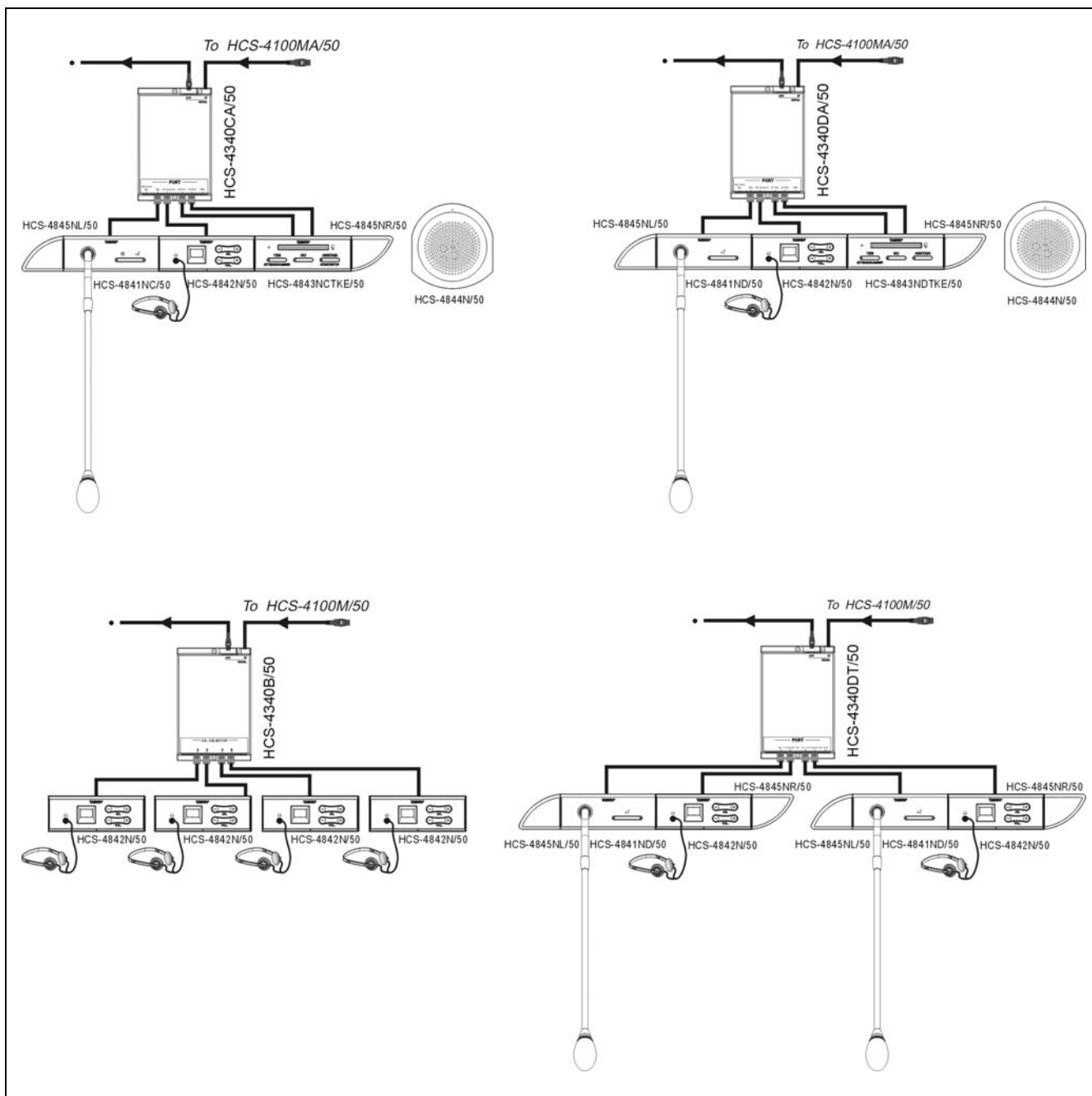


Figure 3.69 Multi-function connector connected to N-series congress units

3.9.4 Operation

Before a meeting starts, the congress units need to be configured by the operator, including: numbering and testing. During the meeting, the participants use the congress unit to sign-in, activate microphone, request to speak, vote, etc.

3.9.4.1 Delegate unit

1. Number (HCS-4842N/50 does not have this function)

First of all, make sure that all congress units are connected properly to the CMU. All congress units must be numbered when the system is used for the first time or when adding or replacing congress units. The numbering function can be activated by menu operation on the CMU front panel or by application software.

Select "Number" by menu operation from the CMU, press the "MENU" key to confirm, following the system goes to numbering status. *"Press '1' key of all congress units one by one and repower"* will be displayed on the CMU LCD. The number indicating light of all connected congress units will blink. Press the microphone On/Off key ("Sign-in/Number" key for voting units) of all congress units one by one. The number indicating light will be deactivated. Once all congress units numbered, restart the CMU to update the number information.

Note:

- ☞ When numbering, please number the conference units one by one and do NOT press "number" key of several conference units at the same time.

2. Sign-in (application software needed, for HCS-4843N/50 series only)

To carry out voting, discussion units with voting and IC-Card reader and voting units should be registered via key press or IC-card. With application software, registration is available by choosing "Seat Sign-in".

■ Key-press sign-in

In key-press sign-in status, the indicating light on key "ATTEND/NUMBER" will blink, press key "ATTEND/NUMBER" to sign-in and the indicating light will be turned off.

■ IC card sign-in

In IC card sign-in status, if the IC card is inserted correctly, the indicating light will blink once and will be deactivated afterwards. If the IC card is invalid or inserted incorrectly, the indicating light will be activated. Please insert the IC card correctly or contact the technical support.

3. Speaking (for HCS-4841N/50 series only)

Speaking mode is configured on the CMU. (refer to section 2.4)

A. "Open" mode

■ Active microphone number limitation (1/2/3/4) **NOT reached:**

- The microphone On/Off key indicating light and the microphone illuminated light ring (red) will be activated at the same time as the microphone On/Off key is pressed. The speaker can give his/her speech;
- The microphone will be deactivated when the microphone On/Off key is pressed again. The microphone On/Off key indicating light and the microphone illuminated light ring will be deactivated.

■ Active microphone number limitation (1/2/3/4) **reached:**

- The microphone On/Off key indicating light and the microphone illuminated light ring (red) will blink when the key is pressed to request to speak;
- Press this key again to cancel the request to speak;
- When an active microphone is turned off, the first request microphone will be activated. At most 6 microphones can request to speak.

B. “Override” mode

■ Active microphone number limitation (1/2/3/4) **NOT reached:**

- a. The microphone On/Off key indicating light and the microphone illuminated light ring (red) will be activated at the same time as the microphone On/Off key is pressed. The speaker can give his/her speech;
- b. The microphone will be deactivated when the microphone On/Off key is pressed again. The microphone On/Off key indicating light and the microphone illuminated light ring will be deactivated.

■ Active microphone number limitation (1/2/3/4) **reached:**

If the microphone On/Off key is pressed, its microphone will be activated and the first activated microphone will be deactivated at the same time to maintain the active microphone number limitation.

C. “Voice” mode

■ Active microphone number limitation (1/2/3/4) **NOT reached:**

- a. The microphone On/Off key indicating light remains on. When the delegate speaks into the microphone at a short distance, the microphone will be activated. The microphone illuminated light ring (red) will be activated;
- b. If the delegate does not speak for several seconds, the microphone will be deactivated automatically. The interval time can be adjusted at the main unit (refer to section 2.4);
- c. When the microphone is activated, pressing the microphone On/Off key turns it off.

■ Active microphone number limitation (1/2/3/4) **reached:**

All other microphones cannot be activated unless one of the active microphones is turned off.

D. “Apply” mode

- a. Request to speak function: when the microphone On/Off key is pressed, the microphone illuminated light ring (blue) will be activated. The chairman unit can approve or reject his/her request;

- b. When his/her request is approved, the microphone illuminated light ring will turn red, he/she can speak. If not connected to PC software, only one delegate unit can request at the same time. Otherwise, the number of requests can be configured from the software;
- c. When the active microphone number limitation is reached, none other delegate can request unless one of the active microphones is turned off.

E. “PTT” mode

■ Active microphone number limitation (1/2/3/4) **NOT reached:**

- a. Press and hold the microphone On/Off button to activate the microphone, the microphone active indicating light and the microphone On/Off button indicating light will turn red. The speaker can give his/her speech;
- b. The microphone will be deactivated when this button is released. The microphone active indicating light and the microphone On/Off button indicating light will be deactivated.

■ Active microphone number limitation (1/2/3/4) **reached:**

Pressing this key cannot activate the microphone until one of the activated microphones is switched off.

The speaking mode as well as the active microphone number limitation can be configured at the main unit. The chairman unit and the VIP unit do not count in the active microphone number limitation. At most 6 microphones can be activated at the same time in a system. VIP units can be assigned by application software - at most 32 VIP units.

When a microphone is activated, the camera can focus it automatically (position preset by application software). Speaker's video can be exported to and displayed on large screen(s).

4. Voting (for HCS-4843N/50 series only)

Voting can be originated by HCS-4100/50 application software.

- The voting button indicating lights of the congress unit start to blink, the delegate can press the voting button to vote;

- For “First key-press valid” voting, the delegate can vote only once, and his/her voting indicating lights will be deactivated after his/her voting;
- For “Last key-press valid” voting, the delegate can change his/her vote. When the delegate voted, the indicating light of his voted key will be activated and all other indicating lights will be deactivated. About 2 seconds later, all indicating lights will blink again, and the delegate can change his/her vote. His/her last voted key will be valid.

5. Channel selector (for HCS-4842N/50 only)

- When the CMU is connected to interpretation unit(s), simultaneous interpretation function will work and the channel selector will be activated. To use the channel selector, an earphone must be plugged in. When the earphone is plugged, the backlight of the channel select display lights up. The delegate can select a suitable language to listen to by means of the channel selector.
- When the earphone is pulled out, the backlight of the channel select display will extinguish and the output will switch to floor audio channel.

6. Volume control (for HCS-4842N/50 only)

- When the earphone is plugged, its volume can be adjusted by the earphone volume control at the top of the unit.

7. VIP unit (for HCS-4841N/50 series only)

- Any delegate unit can be assigned as a VIP unit by HCS-4100/50 application software. At most 32 VIP units can be assigned;
- As long as the active microphone number does not exceed 6 (including chairman/delegate/VIP), the microphone of the VIP unit can be activated freely;
- If the priority mode is configured as “All off”, all active delegate microphones will be turned off when the chairman presses his priority key, and all active VIP microphones will just be muted temporarily. They will restore when the chairman releases the priority key;
- If the active microphone number reached 6, the microphone On/Off key indicating light will blink when the microphone On/Off key is pressed and its microphone cannot be turned on unless one of the active microphones is deactivated.

3.9.4.2 Chairman unit

The chairman unit features all the functions of a delegate unit, and the following additional functions:

1. Priority (for HCS-4841NC/50 only)

- If the priority mode on the main unit is configured as “All mute”, all active delegate and VIP microphones will be muted temporarily and the request-to-speak list will be purged when this key is pressed and they will restore when this key is released;
- If configured as “All off”, all active delegate microphones will be turned off and the request-to-speak list will be purged (in “Open” mode and “Apply” mode) when this key is pressed, and all active VIP microphones will be muted temporarily when this key is pressed and they will restore when this key is released.

2. Speaking (for HCS-4841NC/50 only)

- If the number of active microphones in the system is less than 6 (including chairman/delegate/VIP), the chairman can activate his/her microphone normally, the operation is the same as for the delegate unit (refer to section 3.9.4.1).
- If the number of active microphones in the system is 6, the chairman cannot activate his/her microphone. But he/she can use the “Priority” key to “All mute” or “All off” other microphones and give his/her speech.

3. Controlling delegate unit (for HCS-4841NC/50 only)

A. Approve delegate unit's request to speak

Under “Apply” mode, when a delegate requests to speak, a ring tone will be emitted by the earphone of the chairman's unit.

The chairman can now approve delegate's request and activate delegate's microphone by pressing the microphone on/off key or reject delegate's request by pressing the priority key.

Only one delegate can request to speak at one time and a ring tone will also be emitted by the earphone.

B. Turn off or mute delegate microphone

The chairman can use the “Priority” key to execute “All mute” or “All off” operation.

4. Voting (for HCS-4843NC/50 series only)

HCS-4843N/50 series chairman unit cannot originate voting without a PC. The chairman unit features all the functions of a delegate unit, and the following additional functions:

- When controlled by application software, nominative or ballot voting are available;
- “First key-press valid” or “Last key-press valid” are available;
- Voting can be controlled by application software. The voting operation of the chairman unit and the delegate unit are identical. In this mode, voting can also be controlled by the chairman unit. “Start voting” indicating light on the chairman unit will blink. Voting starts once the chairman pressed the “Start voting” key.

3.10 HCS-4368/50 series wired voting units

3.10.1 Functions and indications

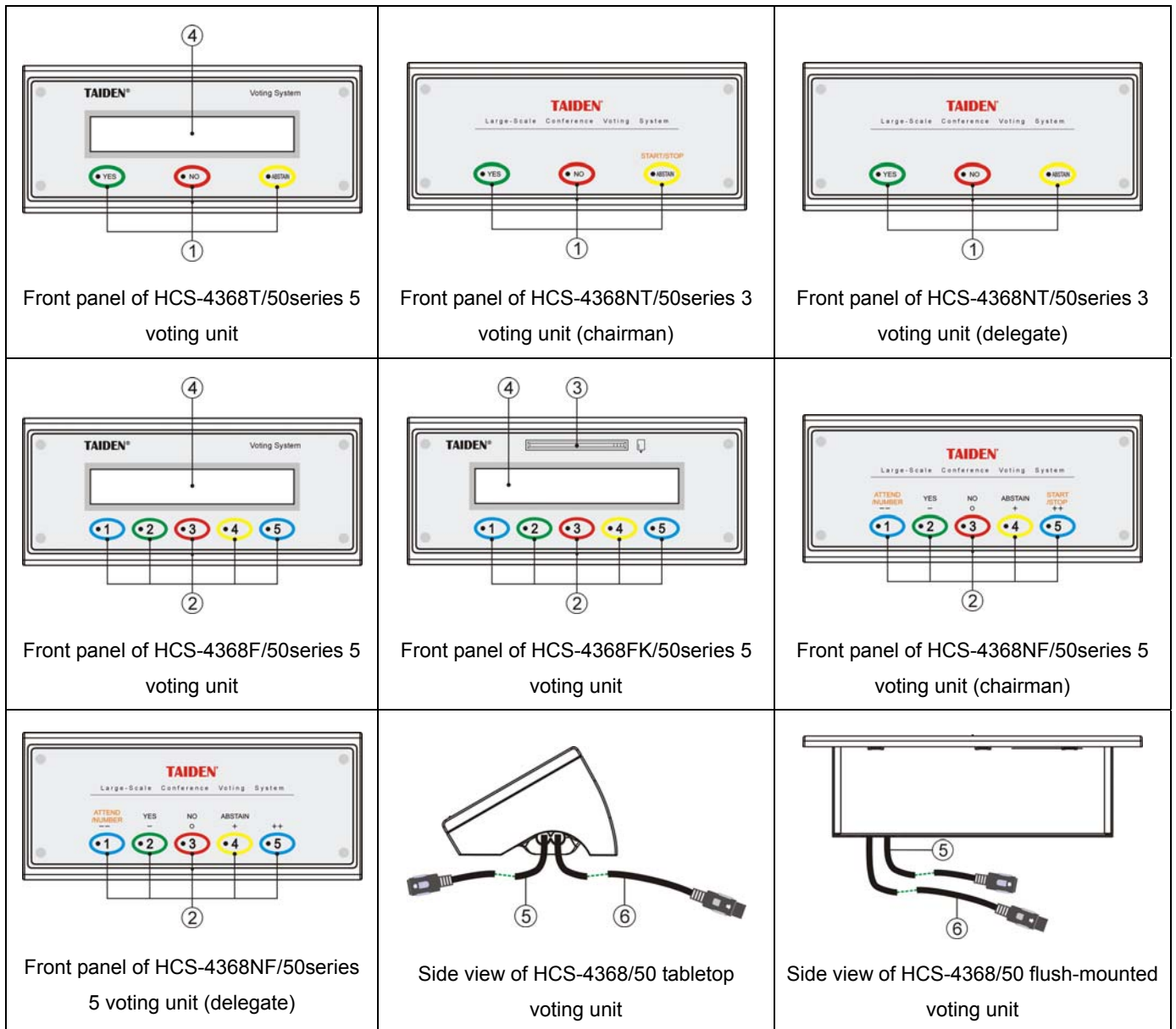


Figure 3.70 HCS-4368/50 series wired voting units

3.10.1.1 Front

1.3 Voting keys and indicating lights

- “START/STOP/ ATTEND/NUMBER/YES”

- In numbering mode, the numbering indicating light will blink, press this key to number;
- In sign-in mode, the sign-in indicating light will blink, press this key to sign-in;
- In voting mode, the voting indicating light will blink, and press this key to vote for “Yes”;
- For the chairman unit: if the system is connected to a PC and if application software is setup for voting control mode by chairman control, this key will blink when clicking the “Start voting” button in the voting interface of

the application software. The chairman can press this key to enter the voting status. Once the chairman voted, the indicating light of this key will blink again. After confirmation that all delegates voted, the chairman presses this key to close voting. Application software will calculate the voting results.

- “NO”

In voting mode, the voting indicating light will blink, and press this key to vote for “No”;

• “ABSTAIN”

In voting mode, the voting indicating light will blink, and press this key to vote for “Abstain”;

2. Multi functional keys with indicating light (5 keys):

♦ Start/Stop/Sign-in/Number/Option1/Response-- Key (“ATTEND/NUMBER/1/--”)

- In key-press sign-in mode, the sign-in indicating light will blink, press this key to sign-in;
- In voting mode (Multiple choice/Opinion poll), the voting indicating light will blink, press this key to vote for option 1;
- In voting mode (Audience response/Rating), the voting indicating light will blink, press this key to vote for 0 (“- -”);
- Chairman unit: if the system is connected to a PC and if application software is setup for voting control mode by chairman control, key “5” will blink when clicking the “Start voting” button in the voting interface of the application software. The chairman can press this key to enter the voting status. Once the chairman voted, the indicating light will blink again. After confirmation that all delegates voted, the chairman pushes key “5” to close voting. Application software will calculate the voting results.

♦ Yes/Option 2/Response - Key (“YES/2/-”)

- In voting mode (Parliamentary), the voting indicating light will blink, press this key to vote for “Yes”;
- In voting mode (Multiple choice/Opinion poll), the voting indicating light will blink, press this key to vote for option 2;
- In voting mode (Audience response/Rating), the voting indicating light will blink, press this key to vote for 25 (“-”).

♦ No/Option 3/Response 0 Key (“NO/3/0”)

- In voting mode (Parliamentary), the voting indicating light will blink, press this key to vote for “No”;
- In voting mode (Multiple choice/Opinion poll), the voting indicating light will blink, press this key to vote for option 3;
- In voting mode (Audience response/Rating), the voting indicating light will blink, press this key to vote for 50 (“0”).

♦ Abstain/Option 4/Response + Key (“ABSTAIN/4/+”)

- In voting mode (Parliamentary), the voting indicating light will blink, press this key to vote for “Abstain”;
- In voting mode (Multiple choice/Opinion poll), the voting indicating light will blink, press this key to vote for option 4;
- In voting mode (Audience response/Rating), the voting indicating light will blink, press this key to vote for 75 (“+”).

♦ Option 5/Response ++ Key (“5/++”)

- In voting mode (Multiple choice/Opinion poll), the voting indicating light will blink, press this key to vote for option 5;
 - In voting mode (Audience response/Rating), the voting indicating light will blink, press this key to vote for 100 (“++”);
- ♦ If not connected to PC, HCS-4368/50 series chairman unit can launch 3 keys voting. Press key “2” to start voting. Once the chairman finished his vote and confirmed that all delegates have voted, he selects key “5” to close voting.
- ♦ For this series discussion unit (with 256×32 LCD), these five keys act as functional keys for menu operation (refer to section 3.11.4.1 for details).

3. IC card socket

4. High light 256 x 32 graphic LCD

- ♦ Can display menu and information in several languages (Simplified Chinese, Traditional Chinese, English, etc.)

3.10.1.2 Side

5. 0.6-meter 6P-DIN cable with standard plug (female x 1)

6. 1.5-meter 6P-DIN cable with standard plug (male x 1)

3.10.2 Installation

3.10.2.1 Flush-mounted installation of HCS-4368/50 series voting unit

- Cut a hole in the table according to the dimensions in figure 3.71;
- Put the discussion unit into the hole and drill four $\varnothing 2$ mm holes with 10 mm depth at P1, P2, P3 and P4;
- Screw at P1, P2, P3 and P4.

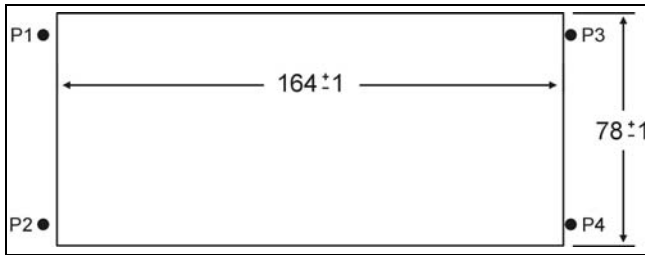


Figure 3.71 Fixing hole positioning diagram of HCS-4368/50 series flush-mounted voting unit (unit: mm)

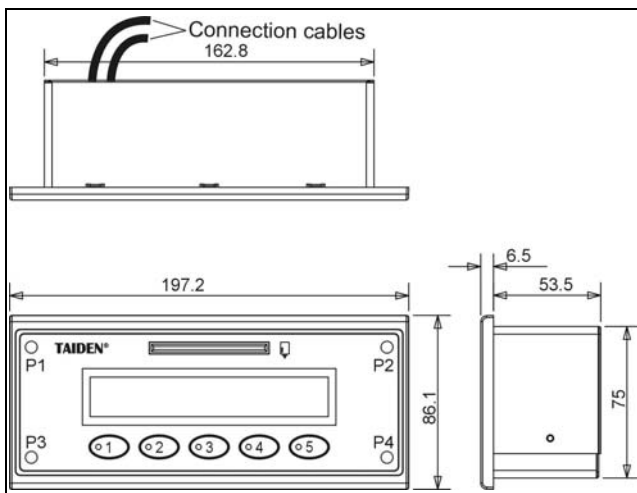


Figure 3.72 Dimension diagram of HCS-4368/50 series flush-mounted voting unit (unit: mm)

3.10.2.2 Installation of the protective cover of HCS-4368/50 series flush-mounted voting unit

If not in use for a long time, just pull out the microphone and hook up the magnetic protective cover:

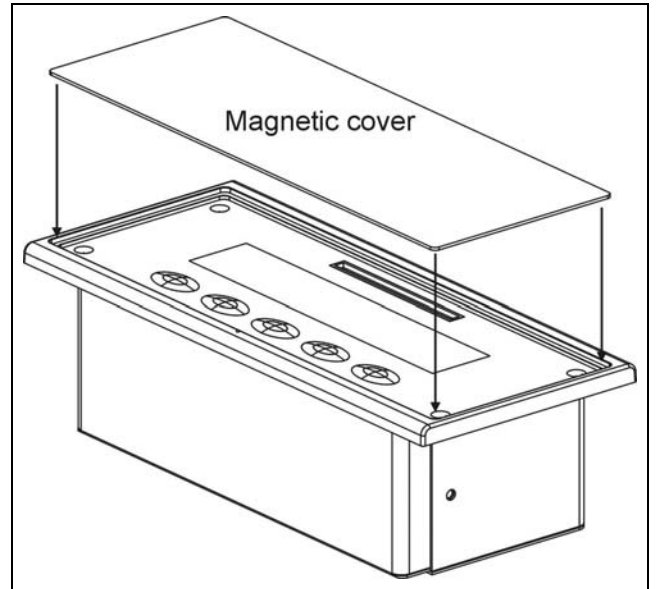


Figure 3.73 Installation diagram of the protective cover of HCS-4368/50 series flush-mounted voting unit

A vacuum cup is needed to dismount the protective cover. Seize the protective cover with the vacuum cup and pull it from the discussion unit.

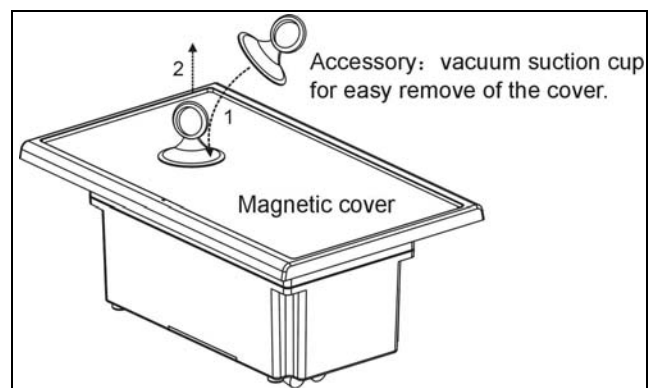


Figure 3.74 Dismounting the protective cover of HCS-4368/50 series flush-mounted voting unit

3.10.3 Connection

3.10.3.1 Connecting to CMU or EMU

The HCS-4368/50 series voting unit is equipped with a 1.5-meter long 6P-DIN cable with a standard male connector. To connect to the HCS-4100/50 CMU or the HCS-8300 EMU, just connect the male connector of the first unit to the output of the main unit.

If there is a long distance between the congress unit and the CMU (EMU), CBL6PS extension cable can be used. One end is equipped with a 6P-DIN male connector and the opposite end with a female connector. Just connect the female connector of the cable to the next congress unit, and connect the male connector to the output of the main unit.

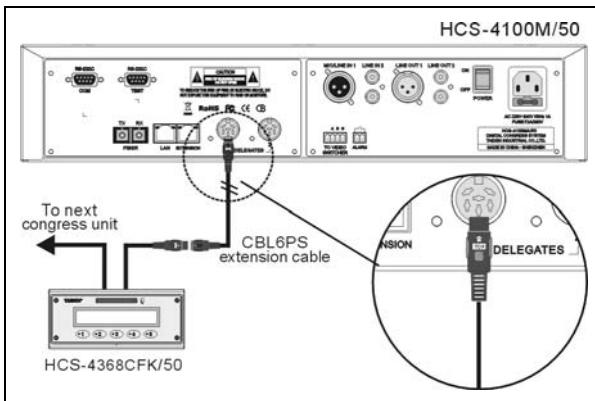


Figure 3.75 HCS-4368/50 series voting unit connected to the CMU or the EMU

Neither the replacement of congress units nor cable faults between congress units will affect the other units if “daisy-chain closed-loop” connection topology is selected. Ring connection, achieved by closing the loop of the daisy-chained units, increases system reliability. To obtain “daisy-chain” ring connection, just connect the last congress unit back to the CMU or the EMU with a CBL6PP extension cable (the cable features a 6P-DIN male connector at each end).

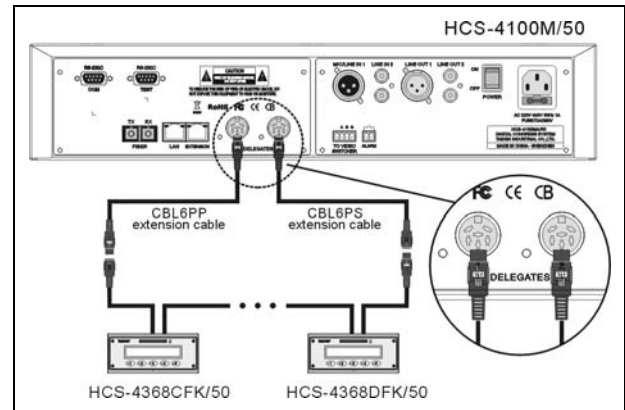


Figure 3.76 Ring connection between the CMU and HCS-4368/50 series voting units

3.10.3.2 Connection between congress units

All congress units of HCS-4100/50 FDCS are daisy-chained easily and conveniently by dedicated 6P-DIN cables.

When connecting to another congress unit, just connect the 6P-DIN standard female connector on the 0.6-meter cable of the unit to the 6P-DIN standard male connector on the 1.5-meter cable of the next unit.

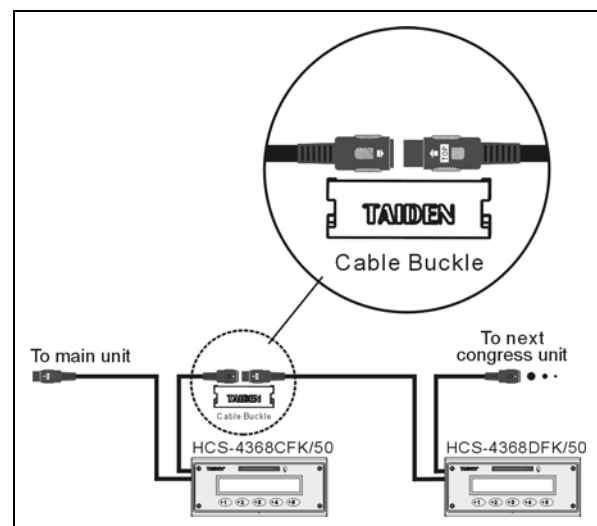


Figure 3.7 “Daisy-chain” connection between HCS-4368/50 series voting units

3.10.4 Operation

Before a meeting starts, the congress units must be configured by the operator, including: numbering and testing. During the meeting, the participants can use the voting unit to sign-in and to vote.

3.10.4.1 Delegate unit

We take HCS-4368DFK/50 as an example to introduce the operation of the HCS-4368/50 series voting units. The other voting units of this series feature one or more of these functions.

1. Number

First of all, make sure that all congress units are connected properly to the CMU. All congress units must be numbered when the system is used for the first time or when adding or replacing congress units. The numbering function can be activated by menu operation on the CMU front panel or by application software.

Select "Number" by menu operation from the CMU, press the "MENU" key to confirm, following the system goes to numbering status. *"Press '1' key of all congress units one by one and repower"* will be displayed on the CMU LCD. The number indicating light of all connected voting units will blink. All voting units with the LCD will display "Numbering". Press key "1" ("YES" key for 3-key voting units) of all voting units one by one. The number indicating light will be deactivated. Once all voting units numbered, restart the CMU to update the number information.

Note:

☞ When numbering, please number the conference units one by one and do NOT press "number" key of several conference units at the same time.

2. Sign-in (application software needed)

To carry out voting, discussion units with voting and IC-Card reader and voting units should be registered via key press or IC-card. With application software, registration is available by choosing "Seat Sign-in".

■ Key-press sign-in

In key-press sign-in status, the indicating light on key "1" will blink, press key "1" to sign-in and the indicating light will be turned off.

■ IC card sign-in

In IC card sign-in status, "Please insert IC card" will be displayed on the LCD. Insert the IC card correctly, a welcome interface will be displayed. Press any key to go to the initial interface. If the IC card is invalid or inserted incorrectly, "Invalid IC card" will be displayed on the LCD. Please insert the IC card correctly or contact the technical support.

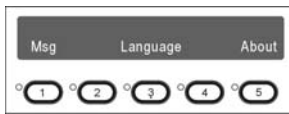
3. Voting

Voting can be originated by the chairman unit (only for 3 keys voting), or by HCS-4100/50 application software.

- The voting button indicating lights of the congress unit start to blink, the delegate can press the voting button to vote;
- For "First key-press valid" voting, the delegate can vote only once, and his/her voting indicating lights will be deactivated and his/her voted item will be highlighted on the LCD after his/her voting;
- For "Last key-press valid" voting, the delegate can change his/her vote. When the delegate voted, the indicating light of his voted key will be activated and all other indicating lights will be deactivated and his/her voted item will be highlighted on the LCD. About 2 seconds later, all indicating lights will blink again, and the delegate can change his/her vote. His/her last voted key will be valid.
- The voting originated by the chairman unit only supports "Last key-press valid".

4. LCD display

After initialization, the following interface will be displayed on the LCD:



A. "Message" (key "1")

- Use this key to read a message. When a PC is connected, the operator can edit and send a message to a congress unit(s).
- On receipt of a message, "You have got a new message" will be displayed on its LCD. Press key "5" to read corresponding message.
- At most 4 messages can be stored in the congress unit, In case of more incoming messages, the first received message will be overlapped.

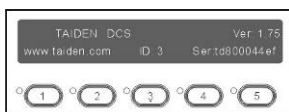
B. "Language" (key "3")

Select the LCD display language between several languages. The range is limited by the configuration in the CMU (refer to section 2.4);



C. "About" (key "5")

Display product information.



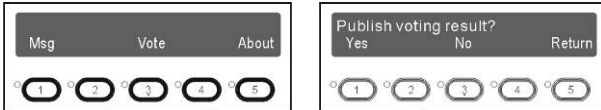
3.10.4.2 Chairman unit

The chairman unit features all the functions of a delegate unit, and the following additional functions:

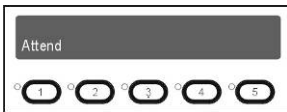
A. Voting without PC

HCS-4368/50 series chairman unit can originate voting without PC:

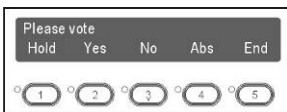
- a. In the initial interface of the chairman unit, press “Vote” (key “3”) to go to the voting control interface as in the following figure:



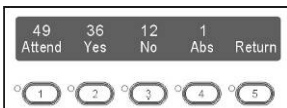
- b. If “Yes” is selected, the voting results will be displayed on the LCDs of all congress units; if “No” is selected, the voting results will be displayed only on the LCD of the chairman unit. After selection, the sign-in indicating light of all congress units will blink. The delegates can press the sign-in key to sign-in. After sign-in, the voting indicating lights will blink, the delegate is now enabled to vote;



- c. Only 3 keys voting can be executed in case of a chairman unit originated voting (“Yes/No/Abstain”) and only “Last key-press valid” is available. The chairman can pause/end the voting:



- d. The chairman presses “End” key to finish voting. The voting indicating light of all congress units will be deactivated. The voting results and sign-in statistics will be displayed on the chairman unit:



B. Voting with PC

- When controlled by application software, nominative or ballot voting are available;
- “First key-press valid” or “Last key-press valid” are available;
- The voting can be controlled by application software. The voting operation of the chairman unit and the delegate unit are identical. In this mode, voting can also be controlled by the chairman unit. The “Start voting” indicating light on the chairman unit will blink. Voting starts once the chairman pressed the “Start voting” key.

Chapter 4 Interpretation unit

Simultaneous interpretation function of HCS-8300 FDCS is designed for the requirements of large scale multilingual international congresses: it can provide up to 64 language channels (64CHs). Each interpretation unit is equipped with a bright graphic LCD with backlighting, 64CHs languages, built-in loudspeaker, pluggable microphone, earphone - headphone socket, etc. Channel number, language name, input language, quality indication, and short messages can be displayed on the LCD. Multi input/output language channels, which can be preset with corresponding shortcut keys, make it convenient for the interpreter to operate. The interpretation unit can be connected directly to the trunk-link and be added easily to an existing system.

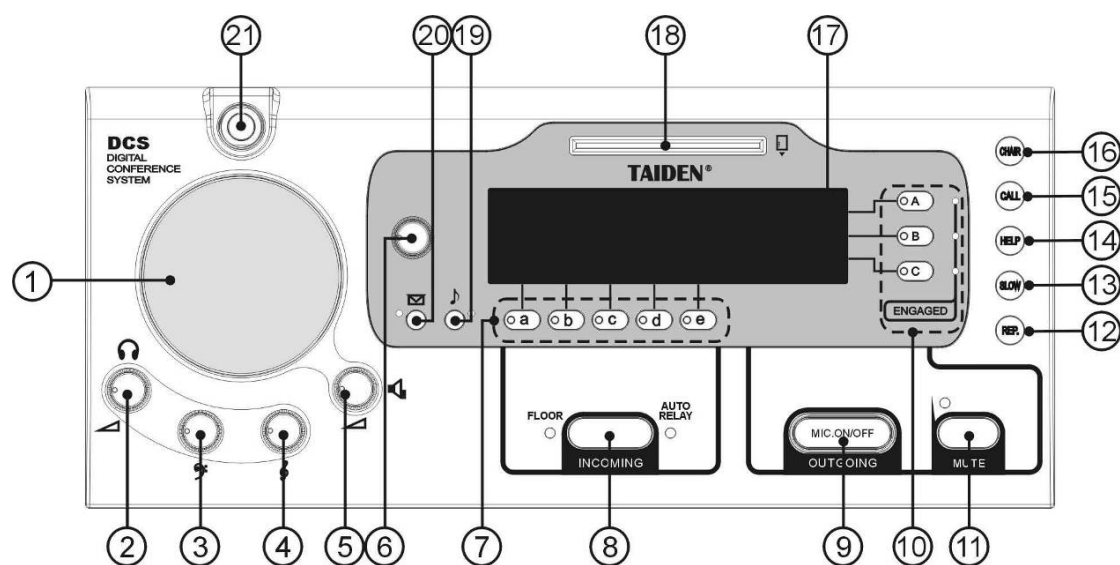
The interpretation unit supports direct and relay interpretation function. In direct interpretation mode, the interpreter translates from the floor language to a preset language directly. In case the interpreter does not understand the floor language he/she uses relay interpretation mode (with auto-relay facility) listening to another interpreter's language as source language to execute interpretation into his/her target language.

Product type:

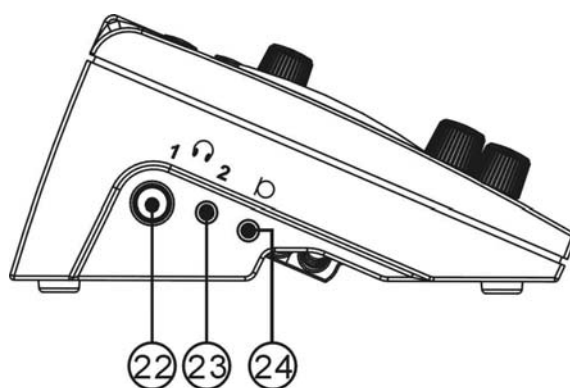
HCS-4385K2/50 Interpretation unit

IC card sign-in - 64CHs simultaneous interpretation - 256x64 LCD

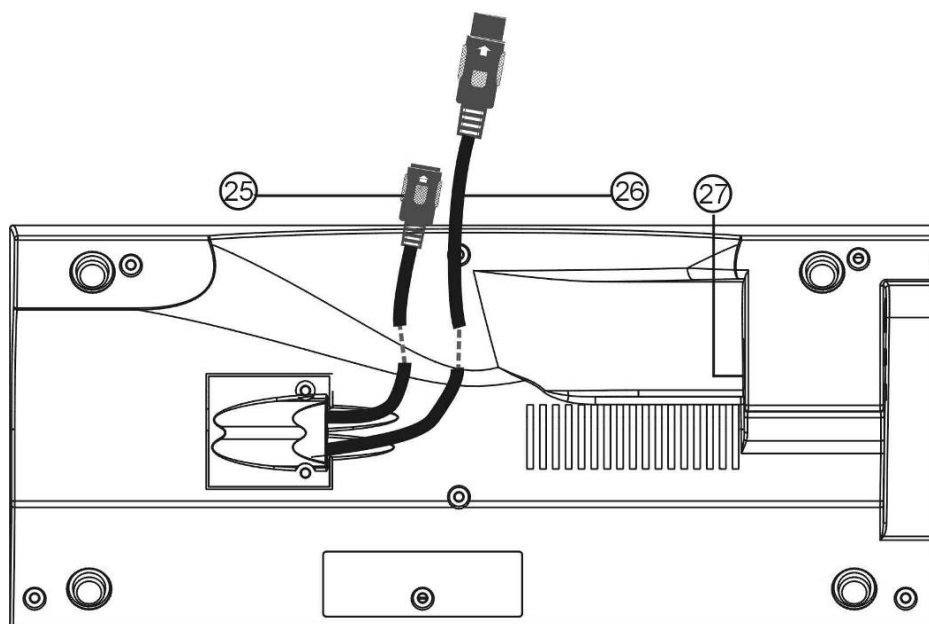
4.1 Functions and indications



Front



Side



Bottom

Figure 4.1 HCS-4385K2/50 Interpretation unit

◇ **Listening area:**

Loudspeaker/earphone control:

1. Built-in Hi-Fi loudspeaker

- ◆ When the microphones of every interpretation unit in the same booth are turned off and if the “FLOOR” indicating light is on, the loudspeaker will play the floor language.

2. Earphone volume control knob

3. Earphone bass control knob

4. Earphone treble control knob

5. Loudspeaker volume control knob

◇ **Input channel control:**

6. Primary knob

- ◆ When the monitor channel shortcut switch button (a b c d e) was pressed, use this knob to select the interpretation channel.
- ◆ When the Output channel B/C switch button (B C) was pressed, use this knob to select the output channel.

7. Monitor channel shortcut switch button (a b c d e)

- ◆ Switch to preset the input channel

8. Floor channel ON/OFF switch

- ◆ Press this button to access the floor language and the FLOOR indicating light will be activated.
- ◆ Switch between floor channel and auto-relay channel.

◇ **Speaking area:**

9. Microphone ON/OFF switch

- ◆ Press this button to turn ON the microphone and the red indicating light will be activated, press this button again to turn off the microphone.
- ◆ If the interpreter booth is off, the blue indicating light will be activated.

10. Output channel A/B/C switch with indicating lights

- ◆ Switch to preset the output channel

11. Microphone mute key (MUTE)

- ◆ Press and hold this button to mute the microphone (on cough) and the mute indicating light will be activated. Release this button on voice recovery.

12. Input channel audio playback (REP.)

- ◆ Press this button to playback the input channel audio, playback time is adjustable between 2~6 seconds.

13. Slow key (SLOW)

- ◆ When the delegate is speaking too fast, press this button to remind him/her to slow down. If the discussion unit is equipped with a LCD, the message “Please speak slower!” will be displayed.

14. HELP

- ◆ When connected to PC and controlled by application software, press this key to call for help and help information will be displayed on the status bar of the application software.

15. Intercom call key (CALL)

- ◆ Press this key to ask the operator for intercom function.

16. Intercom button (CHAIR)

- ◆ Press this key to ask the appointed CHAIR (chairman, delegate or operator) for the intercom function (For the correlative setup please refer to section 2.4.5.).

19. BEEP button (J)

- ◆ The interpreter desk can generate beeps for notification of special events to support blind interpreters on the headphones.

20. Message key (☑)

- ◆ When unread messages exist, this indicating light will be activated. Press this button to read messages.

◇ **Display:**

17. Bright 256×64 graphic LCD

- ◆ Displays the operation menu of the interpretation unit, short message, etc.

◇ **Interface:**

18. IC card socket

21. Socket for pluggable microphone

22. Earphone jack (Ø 6.4 mm jack)

23. Earphone jack (Ø 3.5 mm jack)

24. Microphone jack (Ø 3.5 mm jack)

25. 0.6-meter 6P-DIN cable with standard plug (female x 1)

26. 1.5-meter 6P-DIN cable with standard plug (male x 1)

27. Extension interface

4.2 Installation

HCS-4385K2/50 interpretation unit is available as tabletop or as flush-mounted version.

For flush-mounting:

- Make a recess in the table according to the dimensions in figure 4.2;
- Drill two $\varnothing 4$ mm screw holes in the counterpiece according to figure 4.2. The distance between the centers of the screw holes is 190 mm;
- Insert the underside of the interpretation unit carefully into the cut-out;
- Run the two cables at the bottom of the unit according to the options for cable routing on site;

- Put the interpretation unit into the recess until the circumferential supporting edge fits with the table-top surface. Fix it with screws from the bottom. The length of the screws depends on the thickness of the table.

Note:

- For embedded installation, the supporting edge HCS-4385MP must be ordered separately and fixed onto the interpretation unit before delivery.

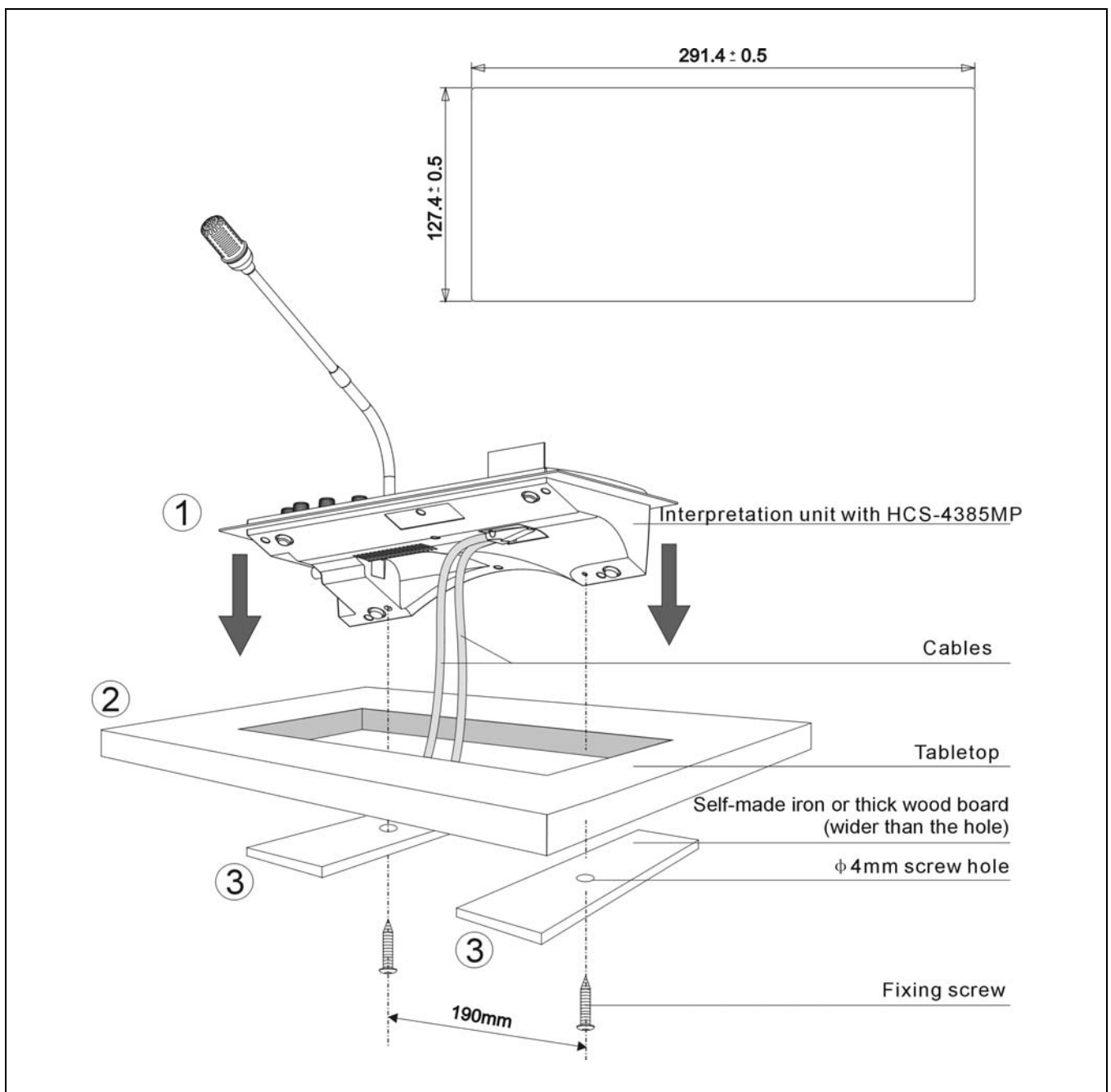


Figure 4.2 Installation diagram (unit: mm)

4.3 Connection

4.3.1 Connecting to the CMU or the EMU

HCS-4385K2/50 interpretation unit is equipped with a 1.5-meter long 6P-DIN cable with a standard male connector. When connecting to the CMU or the EMU, just connect the male connector of the first unit to the output of the main unit.

If there is a long distance between the congress unit and the CMU (EMU), CBL6PS extension cable can be used. One end is equipped with a 6P-DIN male connector and the opposite end with a female connector. Just connect the female connector of the cable to the next congress unit, and connect the male connector to the output of the main unit.

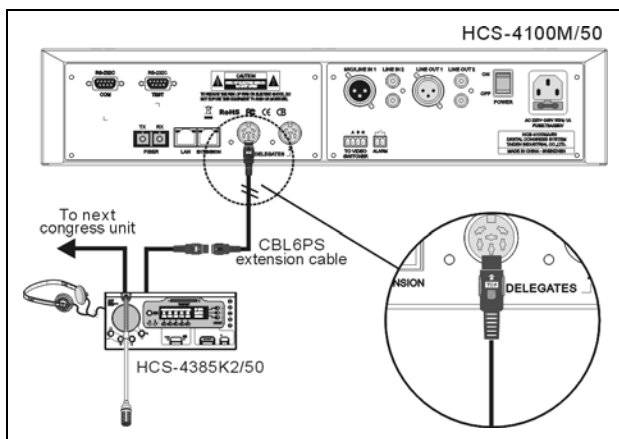


Figure 4.3 HCS-4385K2/50 interpretation unit connected to the CMU or the EMU

Neither the replacement of congress units nor cable faults between congress units will affect the other units if “daisy-chain closed-loop” connection topology is selected. Ring connection, achieved by closing the loop of the daisy-chained units, increases system reliability. To obtain “daisy-chain” ring connection just connect the last congress unit back to the CMU or the EMU with a CBL6PP extension cable (the cable features a 6P-DIN male connector at each end).

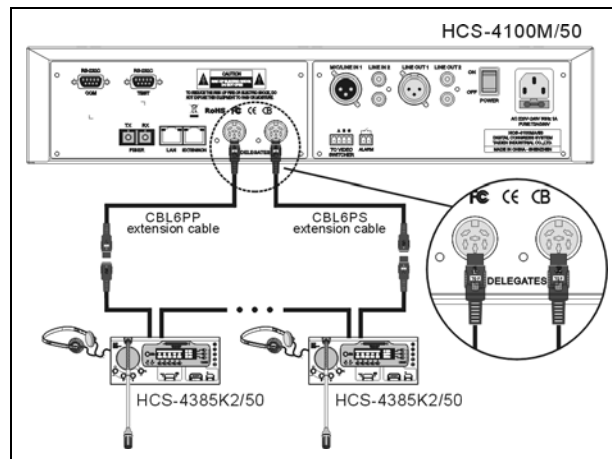


Figure 4.4 Ring connection between the CMU and HCS-4385K2/50 interpretation units

4.3.2 Connection between interpretation units

All HCS-4385K2/50 units are daisy-chained easily and conveniently by dedicated 6-PIN cables.

When connecting to another unit, just connect the 6P-DIN standard female connector on the 0.6-meter cable of the unit to the 6P-DIN standard male connector on the 1.5-meter cable of the next unit.

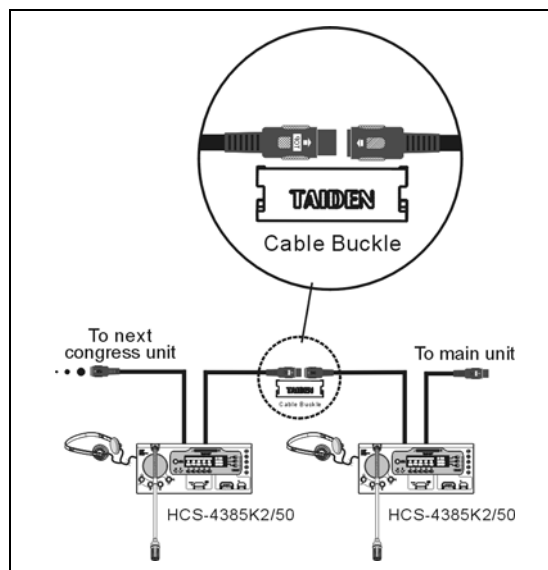
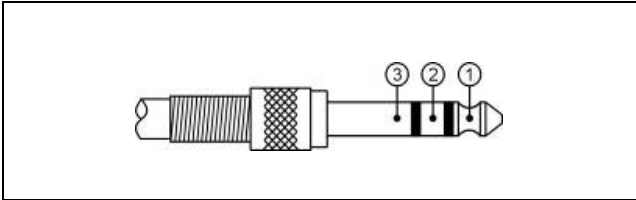


Figure 4.5 “Daisy-chain” connection between HCS-4385K2/50 interpretation units

4.3.3 External earphone

An external earphone can be connected to the external earphone jack at the lateral side of the Interpretation unit. Its volume can be adjusted by the earphone volume control knob. The external earphone shall have a Ø 3.5 mm plug or a Ø 6.4 mm plug, according to the following figure:

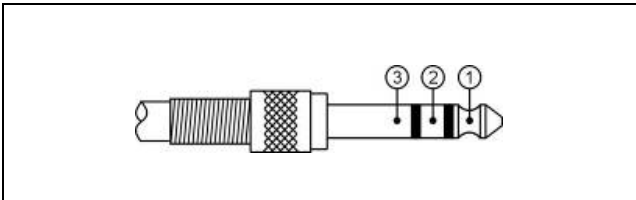


Functions and indications:

- 1.....Left stereo channel signal
- 2.....Right stereo channel signal
- 3.....Power ground/Shield

4.3.4 External microphone

An external microphone can be connected to the external microphone jack at the lateral side of the interpretation unit. The external microphone shall have a Ø 3.5 mm plug, as in the following figure:



Functions and indications:

- 1.....Signal+
- 2.....Suspend/Ground
- 3.....Ground

4.4 Setup

To realize the simultaneous interpretation function, the interpretation unit should be incorporated in the congress system and they should be setup before the meeting. Any operating status of the interpretation unit will be displayed on the LCD. Setup can be done via dialog menu and the buttons on its panel. We take HCS-4385K2/50 as an example to introduce the configuration and operation of the interpretation unit.

4.4.1 Direct interpretation, relay interpretation and auto relay interpretation

Before the setup of the interpretation unit, you should arrange booths according to the actual requirements of the meeting. Assure yourself on the correct allocation of all the interpretation channels.

■ Direct interpretation

Usually, if all interpreters can understand the speaker's language, they just listen to the floor language and are doing simultaneous interpretation. The interpretation languages are distributed to different channels, as shown in figure 4.6. This is called direct interpretation.

■ Relay interpretation

In the second case, if an interpreter is not familiar with the floor language, he/she cannot proceed to direct interpretation. He/she needs to listen to the translation of another interpreter and has to do "secondhand" translation, as shown in figure 4.7. This is called relay interpretation.

■ Auto relay interpretation

When relay interpretation is needed, the interpreter can select a language by the monitor channel shortcut switch button (a b c d e) and the Primary knob. Due to the fact that the output language of each booth is arranged beforehand, the relay booth must be setup before the meeting. If the interpreter cannot understand the speaker's language, he/she does not need to select the input language manually. His/her interpretation unit can switch to his/her familiar language automatically. This is called auto relay interpretation.

Example:

Booth 1 is for translation between English/Chinese. Output channel A is English, output channel B is Chinese, and output channel C is "None". Booth 2 is for translation between French/Chinese. Output channel A is French, output channel B is Chinese, and output channel C is "None". We configure now booth 1 as relay booth for booth 2.

When the speaker is speaking Chinese and if all the interpreters of booth 1 and booth 2 are familiar with Chinese, they can do direct interpretation. As shown in figure 4.6.

When the speaker is speaking English, the interpreters in booth 1 setup output channel B (Chinese) as interpretation language. The interpretation units in booth 2 will take Chinese as their input channel. When the microphone ON/OFF switch in booth 1 is pressed, the floor channel indicating light in booth 2 will be turned off and its "AUTO RELAY" indicating light will be activated. It indicates that auto relay interpretation function is working. The interpreters in booth 2 can do relay interpretation. As shown in figure 4.7.

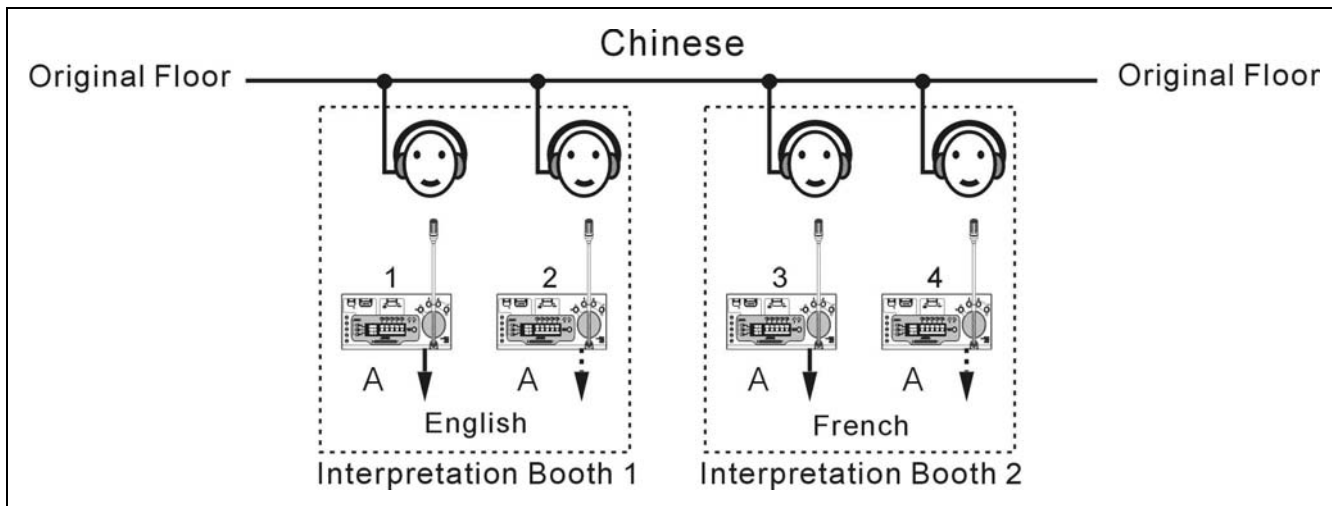


Figure 4.6 Direct interpretation

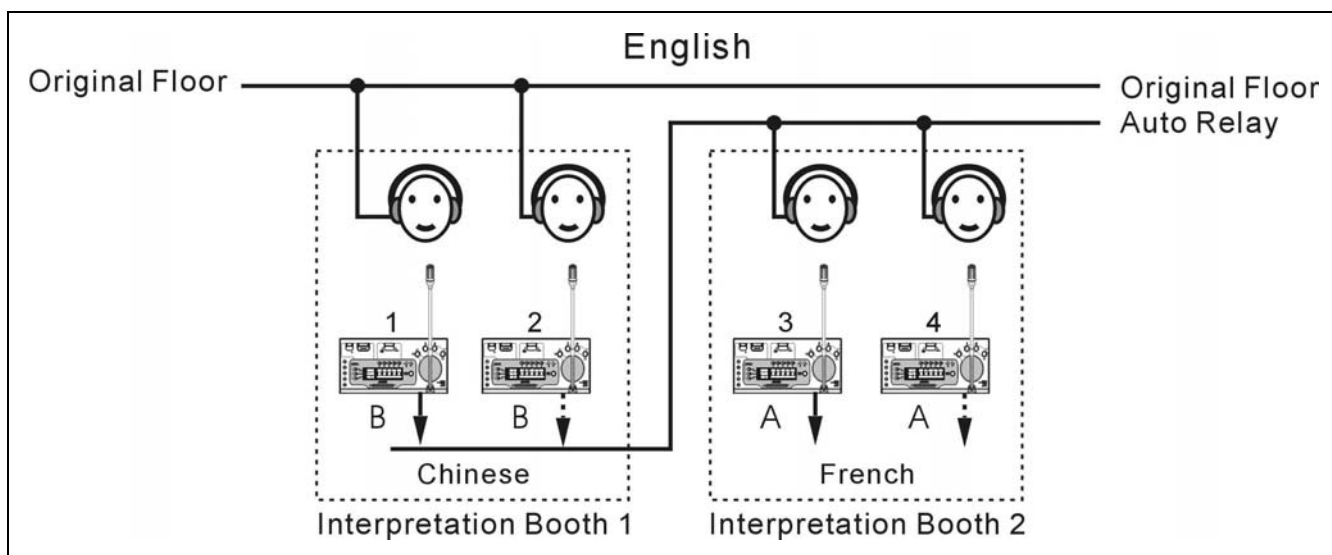


Figure 4.7 Relay interpretation

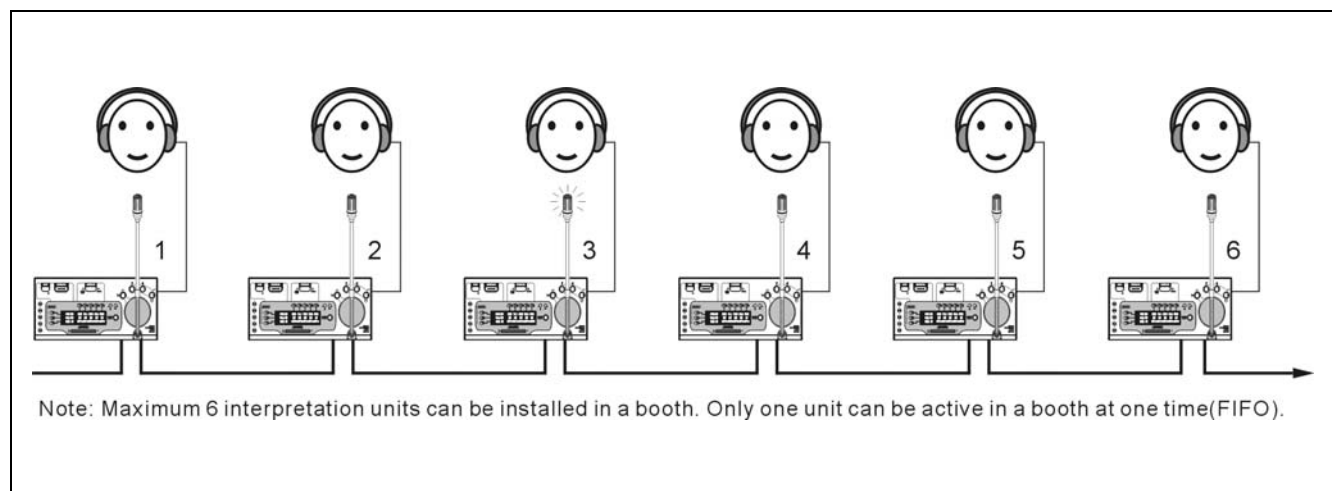
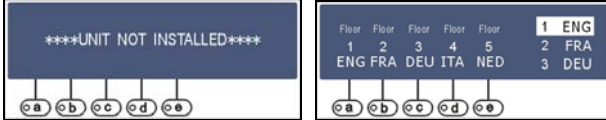


Figure 4.8 Schematic diagram of the connection of interpretation units

4.4.2 LCD configuration menu

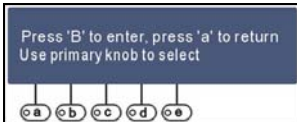
When the “Interpretation setup” has been configured in the CMU, the interpretation unit will display “UNIT NOT INSTALLED” as shown in the following figure at the left, or display the standby interface as shown in the following figure at the right:



A) Accessing configuration menu

- **“Interpretation unit does not setup” interface:** press any button to go to the menu configuration of the interpretation unit;
- **Display standby interface:** press and hold the message button (M), at the same time, clockwise rotate the Primary knob, to go to the menu configuration of the interpretation unit.

The LCD will display the following figure:



In the menu operation of the interpretation unit:

- ♦ Use the Primary knob to run through all submenus;
- ♦ Use “B” button to confirm/go to submenu;
- ♦ Use “a” button to return/exit.

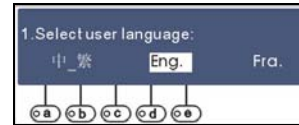
B) Menu configuration

The menu operation of the interpretation unit is as follows:

- Step 1: setup operation language;
- Step 2: setup booth number;
- Step 3 to 7: select monitor channel a/b/c/d/e language;
- Step 8: Select to activate “SLOW” function or not;
- Step 9: Select to activate “HELP” function or not;
- Step 10: Select to activate “Auto Floor” function or not;
- Step 11: Select to display speaking time or not;
- Step 12: setup auto relay booth quantity;
- Step 13: setup auto relay booth number;
- Step 14: finish.

Step 1: Setup operation language

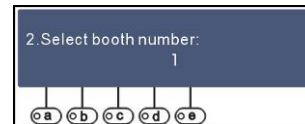
Press the “B” button to setup the operation language, i.e. the display language on the LCD:



- 1). Select the language between several languages: Simplified Chinese, Traditional Chinese, English, Korean, etc., by rotating the Primary knob;
- 2). Press the “B” button to confirm and go to the next step;

Step 2: Setup booth number

Setup the interpretation unit with the number of the booth within which the interpretation unit is located, according to the configuration in the CMU.



- 1). Select the booth number by rotating the Primary knob, the range is limited by the configuration in the CMU (refer to section 2.4.2);
- 2). Press the “B” button to confirm and go to the next step or press “a” to return.

Step 3 to 7: Select monitor channel language

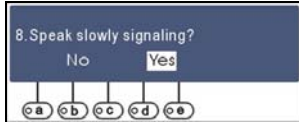
Preset 5 most familiar languages as monitor channel.



- 1). Select a language for the monitor channel by rotating the Primary knob, the range is limited by the configuration in the CMU (refer to section 2.4.2);
- 2). Press the “B” button to confirm and go to select the next monitor channel language;
- 3). Repeat 1) ~ 2) to setup a language for every monitor channel, and go to step 8.

Step 8: Select to activate “SLOW” function or not

If the speaker speaks too fast and if the “SLOW” function is activated, the interpreter can press the “SLOW” button to inform the speaker to slow down. The congress unit with an LCD will hint “Please speak slower!”



- 1). Use the Primary knob to select to activate the “SLOW” function or not.;
- 2). Press the “B” button to confirm and go to step 9.

Step 9: Select to activate “HELP” function or not

When PC software is operated and if “HELP” function is activated, press the “HELP” button to request for operator’s help.



- 1). Use the Primary knob to select to activate the “HELP” function or not.;
- 2). Press the “B” button to confirm and go to step 10.

Step 10: Select to activate “Auto Floor” function or not

If the selected input language is the same as the output language and if “Auto Floor” function is activated, the interpretation unit will switch the input channel to floor language automatically.



- 1). Use the Primary knob to select to activate “Auto Floor” function or not.;
- 2). Press the “B” button to confirm and go to step 11.

Step 11: Select to display speaking time or not

When the microphone is activated and if “display speaking time” was selected, speaking time will be displayed at the right upper corner on the LCD.

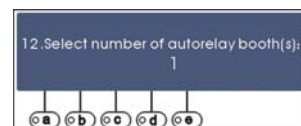


- 1). Use the Primary knob to select to display the speaking time or not.;
- 2). Press the “B” button to confirm and go to step 12.

Step 12: Setup auto relay booth quantity

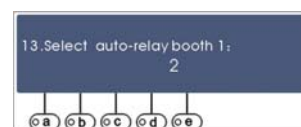
Setup the required relay booth quantity for this interpretation unit. If an interpreter in booth A is not familiar with the floor language, then he/she needs to listen to another interpreter’s translation language from booth B and needs to do secondhand translation. Booth B is called relay booth of booth A. The relay booth quantity is 0~3.

- 0 means that this interpretation unit does not need relay interpretation. Press “B” button to finish configuration.;
- Selection of any other value means that this interpretation unit needs relay interpretation. Press “B” to go to the next step.



Step 13: Setup auto relay booth number

Setup the auto relay booth number for this interpretation unit. For example, setup booth 2 as its first auto relay booth, as shown in the following figure. If more auto relay booths are needed, use the same method to setup all of them.



Step 14: Finish

After finishing the interpretation unit menu configuration, the following interface is shown. Press the “B” button to confirm and to return to the standby interface.



4.4.3 Other configuration

4.4.3.1 Output channel configuration

To distribute the interpretation languages separately, A/B/C channels are provided in the interpretation unit. When the interpretation unit menu configuration is finished, the output channel of every interpretation unit must be setup before the meeting and according to the actual requirements.

- a. Output channel A is setup at the CMU, and its output language is a fixed language as the output of the booth;
 - b. Output channel C is used to output a non-conventional language. Output channel C can be setup as “None” or “All” from the CMU menu configuration (refer to section 2.4.2).
- ◆ If output channel C is set as “All”, the interpreter can select the output language by pressing the output channel C switch and by rotating the Primary knob at the same time. If the output channel C is activated, the output of this interpretation unit will be distributed to all booths which set this booth as their auto relay booth, and other interpreters can do relay interpretation. Now, the output language of the output channel B is a fixed language as the output of the booth at the CMU menu configuration (refer to section 2.4.2);
 - ◆ If the output channel C is set as “None”, the output channel B is used to output a non-conventional language. Output channel B can be setup as “None” or “All” from the CMU menu configuration. If the output channel B is set as “All”, the interpreter can select the output language by pressing the output channel B switch and by rotating the Primary knob at the same time. If the output channel B is activated, the output of this interpretation unit will be distributed to all booths which set this booth as their auto relay booth, and other interpreters can do relay interpretation.

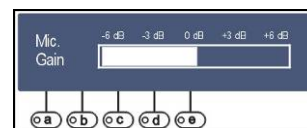
4.4.3.2 Interlock mode

Interpretation mode can be setup by menu operation on the main unit (refer to section 2.4.5):

- ◆ **Override:** allows an interpreter to override another interpreter in another interpreter booth supplying the same interpretation channel.
- ◆ **Interlock:** blocks another interpreter from using the same channel in another interpreter booth.

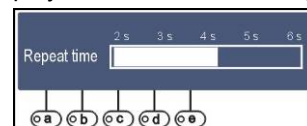
4.4.3.3 Microphone gain configuration

In standby interface, press and hold the message key (☒) and rotate the loudspeaker volume knob ⑤ clockwise to go to the microphone gain configuration interface. Rotate the loudspeaker volume knob ⑤ to set the microphone gain within a range between -6 dB~+6 dB.



4.4.3.4 Playback time configuration

In standby interface, press and hold the message key (☒) and rotate the earphone volume control knob ② clockwise to go to the playback time configuration. Rotate the earphone volume control knob ② to set the playback time within a range between 2 s~6 s.



4.4.3.5 Dynamic range compress threshold configuration

In standby interface, press and hold the message key (☒) and rotate the earphone treble control knob ④ clockwise to go to the dynamic range compress threshold configuration interface. Rotate the earphone treble control knob ④ to set the dynamic range compress threshold within a range between -12 dB~0 dB.



4.5 Operation

4.5.1 Operation of listening area

The listening area, on the left side of the unit, is the area used to monitor the floor or the interpretation channels. It includes a built-in loudspeaker, a headset socket and the corresponding control buttons and knobs. This intuitive layout is helpful for the interpreters to familiarize with the interpretation unit quickly.

1. Channel language is the language arranged for a channel in the CMU configuration. For example, 10 languages are configured and we setup channel 1 as Chinese, and channel 2 as English, etc. This setting is to simplify the work of the interpreters and to make labels for all selectable languages for all participants.
2. If the interpreter presses the floor channel button ⑧, he/she can listen to the floor language. If the microphone of every interpretation unit in this booth is turned off, he/she can monitor the floor language from the built-in loudspeaker and adjust the volume with the "Loudspeaker volume control knob" ⑤. When a microphone in this booth is activated, the loudspeaker of every interpretation unit in this booth will mute automatically. Now the interpreter can listen with the earphone and adjust the volume, treble and bass with the "Earphone volume control knob" ②, "Earphone bass control knob" ③ and "Earphone treble control knob" ④ which are located on the left lower side.
3. If the interpreter wants to listen to another channel language, he/she can select the preset channel language with the "Monitor channel shortcut switch button (a b c d e)". The loudspeaker will mute automatically. If the channel language is not preset, he/she can select the channel language with the Primary knob ⑥.
4. If the speaker speaks too fast and if the interpreter cannot follow him/her, the interpreter can press the "SLOW" button to remind the speaker to slow down. When the "SLOW" button is pressed, a ring tone will be emitted by the corresponding discussion unit. If the discussion unit is equipped with a LCD, the message "Please speak slower!" will be displayed.

5. If the interpreter missed the speaker's speech, he/she can press the input channel audio playback key (REP) to playback missed words and "REP" will be displayed on the LCD. The playback time ranges between 2 s~6 s.
6. Quality indication: if the monitored language is coming directly from the orator, it will display "FLOOR". If the monitored language is from the direct translation of the floor, it will display "+". If the monitored language is from the relay translation of another translation, it will display "-". This logo is used to remind the interpreter to avoid using the relay translation if direct translation is available.

4.5.2 Operation of speaking area

The speaking area, on the right side of the unit, is the area which is used to distribute the interpretation languages to the corresponding channels. It includes functional buttons and channel selectors, etc.

1. Press the microphone ON/OFF button, and distribute the interpretation language to the output channel.

At most 6 interpretation units can be set in one booth for 6 interpreters. Only one microphone can be activated in one booth (FIFO). When one microphone in the booth is activated, the loudspeaker of every interpretation unit in the booth will mute.

2. Output channel select:

- ◆ Use “A”, “B” or “C” button to switch the output channel quickly. If the auto relay interpretation is activated and the output channel B/C activated, the output will be automatically distributed to all booths which set this booth as their auto relay booth and other interpreters can now do relay interpretation.
- ◆ Both “A”, “B” and “C” buttons have an “ENGAGED” indicating light each. If the selected output channel is already engaged by another interpretation unit, this indicating light will be activated.

3. Press and hold the “MUTE” button to close the microphone temporarily and the MUTE indicating light will be turned on. Releasing the button will activate the microphone automatically.

4. “MESSAGE” (✉) button is used to check short messages.

This button is also used to access the configuration menu of the interpretation unit (refer to 4.4.2).

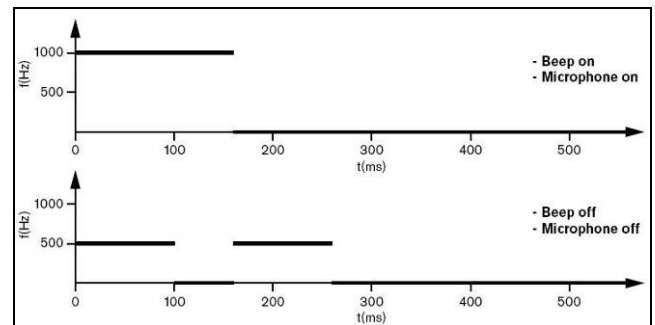
5. “CALL” button: used by the interpreter to call the operator and have intercom facility

6. “HELP” button: used by the interpreter calling for help. Help information will be displayed on the status bar of the application software.

7. Intercom button (CHAIR): used to ask appointed CHAIR (chairman, delegate or operator) for intercom function.

8. Beeps

The audio beeps can be toggled on and off with the beeps button. If this function is enabled, the audio beeps can also be toggled on and off with the Mic. ON/OFF button.



Chapter 5 System connection and basic setup procedure

5.1 System connection

HCS-4100/50 FDCS has a simple and reasonable structure with high extendibility in hardware. The system installation is simple and quick and does not need special training. Daisy-chain connection is adopted between congress units as well as to CMU via dedicated 6PIN cable.

TCP/IP protocol is adopted for Ethernet connection between the CMU and the PC. As a result remote control, remote diagnosis and remote update can be achieved. Application software for client and server can run on one computer or on different computers in the same LAN. The operator is able to control the progress of the meeting flexibly.

In this chapter, the connections of HCS-4100/50 FDCS are introduced by diagrams and examples.

5.1.1 Connection principles

In HCS-4100/50 DCS the system power is provided by HCS-4100M/50 CMU (or HCS-8300ME/ HCS-8300ME/F extension unit) for all congress units. Thus, the total number of system units in any installation is limited by the maximum power handling capacity and control capacity of the CMU (or EMU). One CMU contains 2x 6P-DIN outlet trunk-line cable connectors, and each outlet connector can output 60W. One extension main unit (EMU) contains 4x 6P-DIN outlet trunk-line cable connectors, and each outlet connector can output 80W. Since the power capacity of a 6P-DIN interface is limited, it must be ensured that, during the installation, the sum of the total power consumption of all the congress units connected to every single 6P-DIN interface plus the power loss in the extension cables does not surpass the power limit of each 6P-DIN interface. Otherwise the system will not work properly or automatic protection will occur.

Daisy-chain connection by dedicated 6 pin cable is effected to connect a congress main unit to an extension main unit or to interconnect two EMU. HCS-4100/50 system can accommodate 4096 discussion/voting units (by using system application software up to 100 chairman units can be connected but only 1 chairman unit does have control facilities), 378 interpretation units

(63 interpretation booths, 6 in each), an unlimited quantity of channel selectors, and provide 64 language channels (including floor language) simultaneous interpretation.

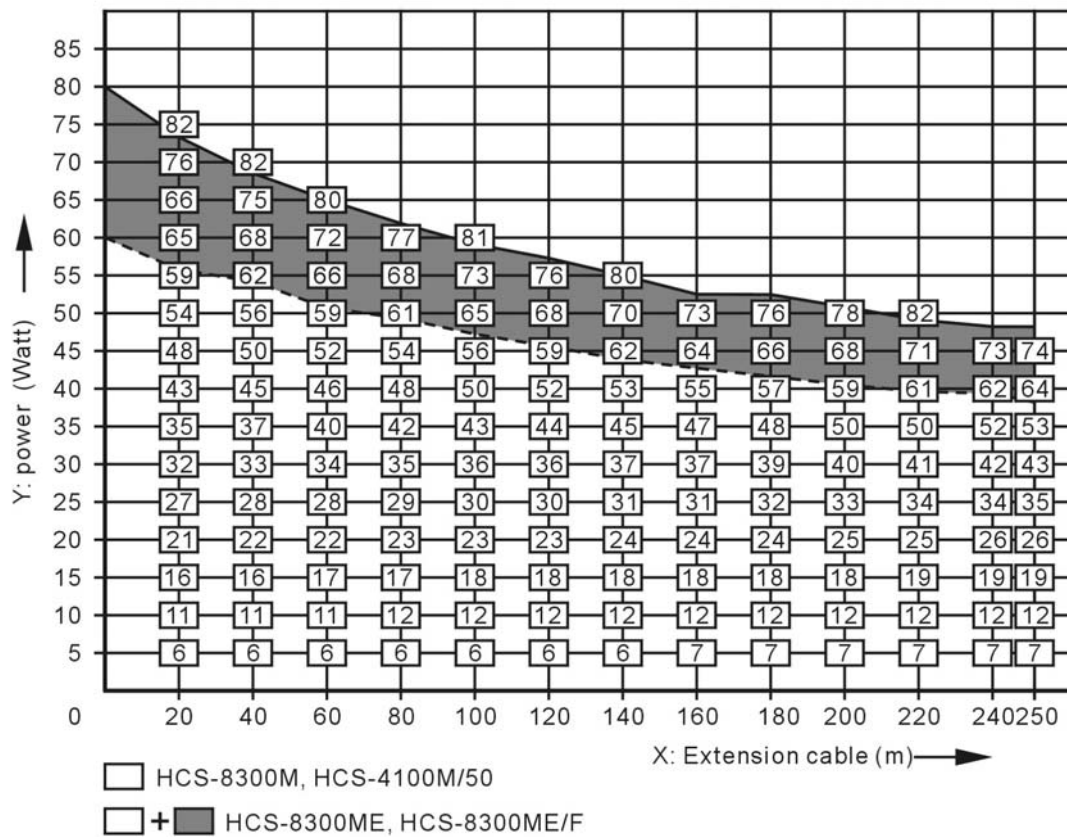
- (1). The output power of each 6P-DIN interface of the main unit or backup unit is 60 W; the output power of each 6P-DIN interface of the extension main unit is 80 W.
- (2). Refer to the table 5.1 for the power consumption of each type of congress unit:
- (3). Length of extension cables
 - The added up cable lengths between a main unit and the most remote congress unit must not exceed 250 m.
 - The length of an individual extension cable must not exceed 100 meters - including the cable between the main unit and the first congress unit and the cable between two congress units. Otherwise it will affect the signal quality. In case the length exceeds 100 m, repeaters are needed.
 - The extension cable between the main unit and the first congress unit is carrying the maximum possible current = the current of all the N units connected to that specific 6P-DIN socket. The 2nd cable carries the current of N-1 units, the 3rd of N-2 units etc.
 - Due to the unavoidable specific ohmic resistance of the cable, a voltage drop in the DC supply strands is resulting. The drop depends both on the number N of units (= load) connected and the cable length(s).
 - According to this interdependency between load and cable lengths the maximum possible number of units is a function of the cable lengths and vice versa. However, the cable length between the two last congress units is nearly insignificant because this cable only carries the current for one unit.
- (4). The necessary power (the total power consumption of the units and the extension cables that are connected to the socket)
 - a. Find the power consumption of each unit from the consumption table (refer to table 5.1), add together the power used by all the units. The result is the total power consumption of the units that are connected to the socket;

- b. Add together the lengths of all extension cables in the longest sequence;
- c. Find the total power consumption (refer to a) on the vertical axis (Y) of the power correction graph (for example, 50 W); find the length of the longest extension cable sequence (refer to b) on the horizontal axis (X) of the power correction graph (for example, 60 m). The intersection of both values gives the necessary power from the socket (in this example it is 59 W).
- d. HCS-4100M/50 or HCS-8300M can be operated only in the white marked area.
- e. HCS-8300ME and/or HCS-8300ME/F can be operated both in the white and in the grey marked areas.

Table 5.1 Power consumption

Type	Type No.	Max. power consumption
Equipped with 7" LCD and built-in loudspeaker	HCS-8307	7.5 W
Equipped with 256×32 LCD and built-in loudspeaker	HCS-4886/50 、 HCS-4887/50 、 HCS-4380/50 、 HCS-4382/50 、 HCS-4365/50	2.3 W
Equipped with 256×32 LCD and without built-in loudspeaker	HCS-4368/50	1.8 W
Equipped with built-in loudspeaker and without 256×32 LCD	HCS-4888/50 、 HCS-4370/50 、 HCS-4371/50 、 HCS-4366/50 、 HCS-4360/50 、 HCS-4361/50 、 HCS-4362/50 、 HCS-4363/50 、 HCS-4330/50 、 HCS-4331/50 、 HCS-4332/50 、 HCS-4333/50 、 HCS-4335/50	
Without 256×32 LCD and built-in loudspeaker	HCS-8313、 HCS-8314、 HCS-8315、 HCS-4320/50、 HCS-4321/50、 HCS-4322/50	1.3 W
Equipped with 256×64 LCD and built-in loudspeaker	HCS-4385K2/50	2.8 W
Multi-function connector	HCS-4340/50	2.1 W
Cable Splitter (relay facility)	HCS-4352	1.0 W

Table 5.2 Power correction graph



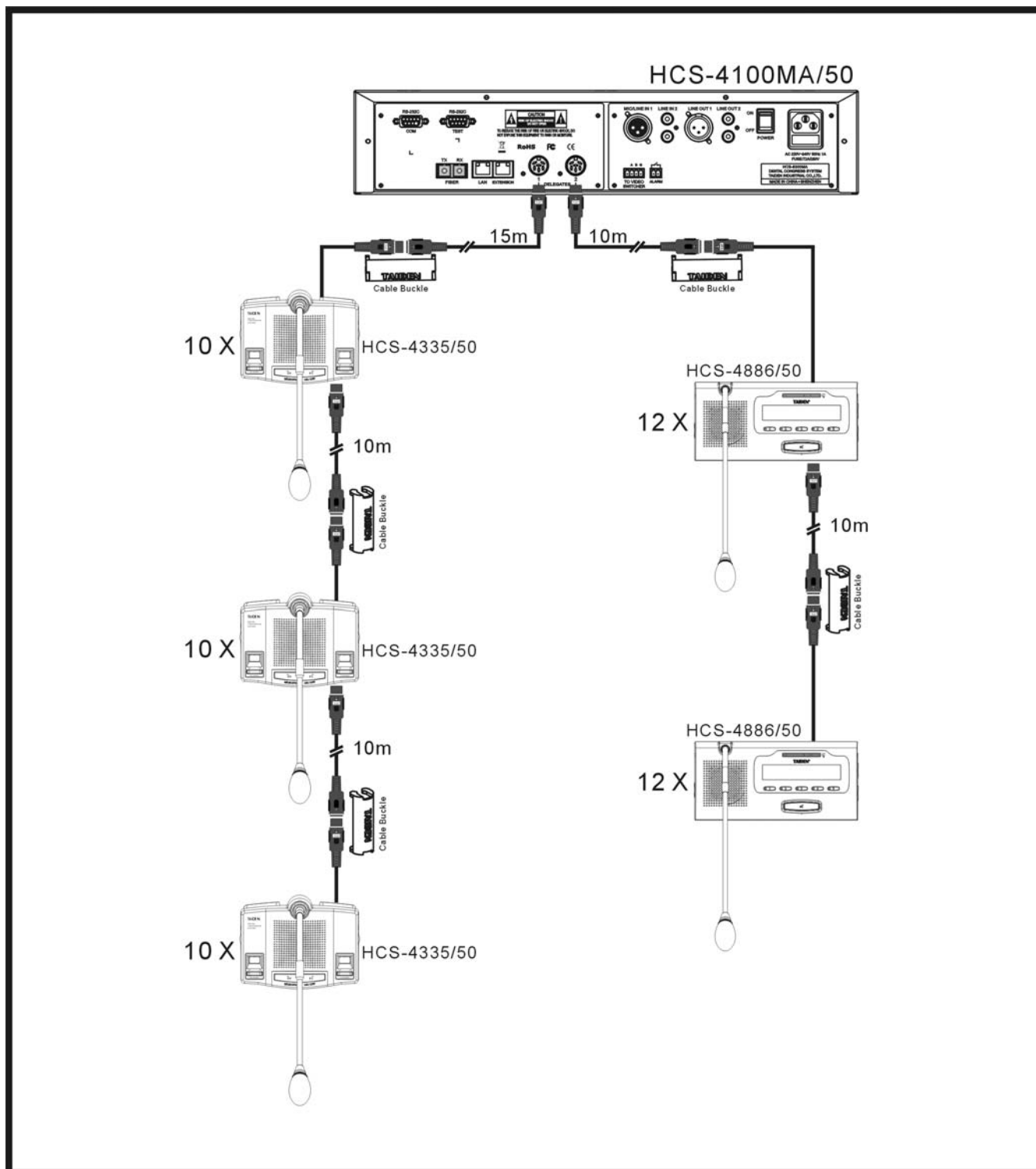


Figure 5.1 Example for the connection of congress units

Actual power consumption of the first route:

- Total power consumption of the congress units connected to first route 6P-DIN interface: $30 \times 1.8 = 54 \text{ W}$;
- Total length of the extension cables connected to the first route 6P-DIN interface: $15 + 10 + 10 = 35 \text{ m}$;
- Actual needed power consumption corresponding to chart 5.2: 59.7 W .

Actual power consumption of the second route:

- Total power consumption of the congress units connected to the second route 6P-DIN interface: $24 \times 2.3 = 55.2 \text{ W}$;
- Total length of the extension cables connected to the first route 6P-DIN interface: $10 + 10 = 20 \text{ m}$;
- Actual needed power consumption corresponding to chart 5.2: 58.6 W .

5.1.2 Connection between the CMU/EMU and the contribution units

All contribution units of HCS-4100/50 FDCS adopt dedicated 6 Pin cable and are daisy-chained, which makes the installation handy and effortless.

D series feature a 2.1 m 6P-DIN standard plug cable and a 6P-DIN socket, while the rest of the contribution units feature a 1.5 m 6P-DIN standard plug cable and a 0.6 m 6P-DIN socket cable instead.

Connect the 1st unit to the outlet connector of the CMU, and following connect the plug of the cable of the 2nd unit to the socket of the 1st unit. Proceed one by one in a series configuration.

The backbone of HCS-4100/50 system is formed (as shown in figure 5.2, 5.3).

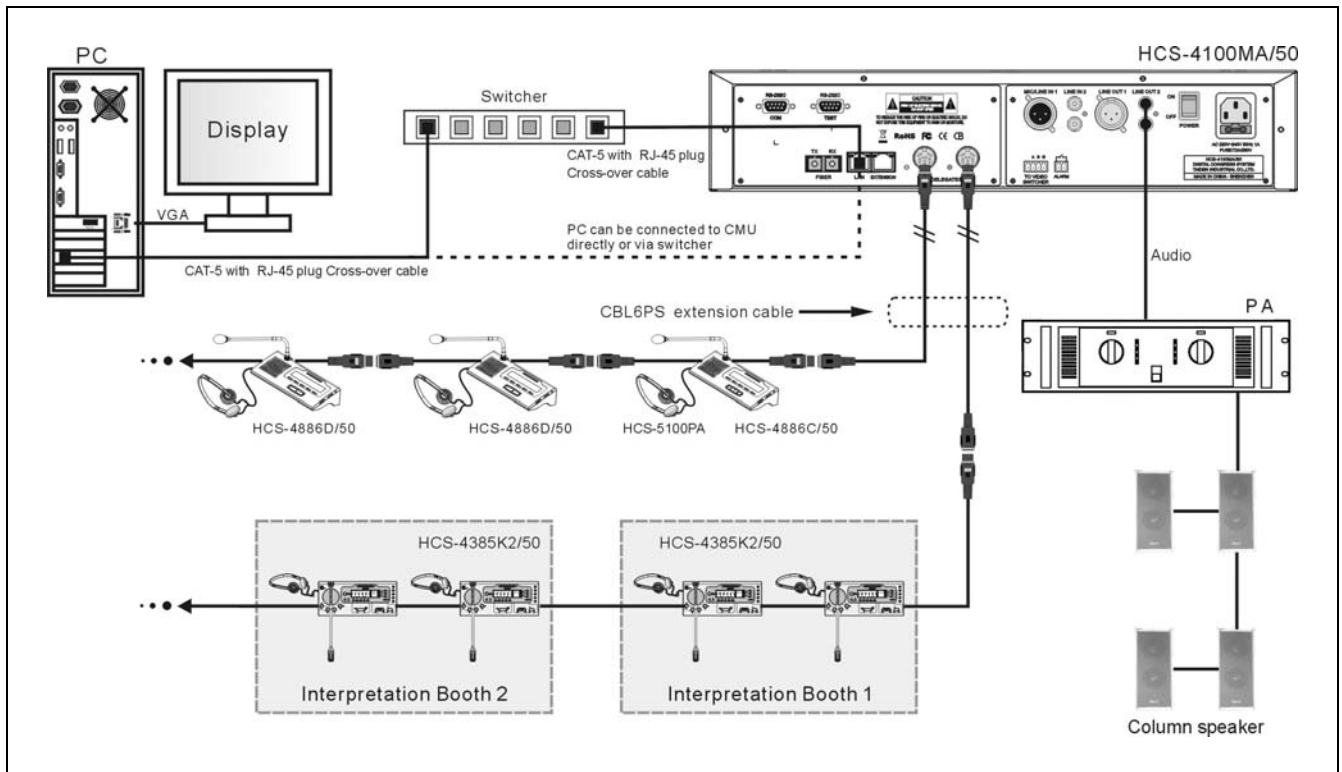


Figure 5.2 Congress main unit connecting to G-series contribution units and HCS-4385K2/50 interpretation units

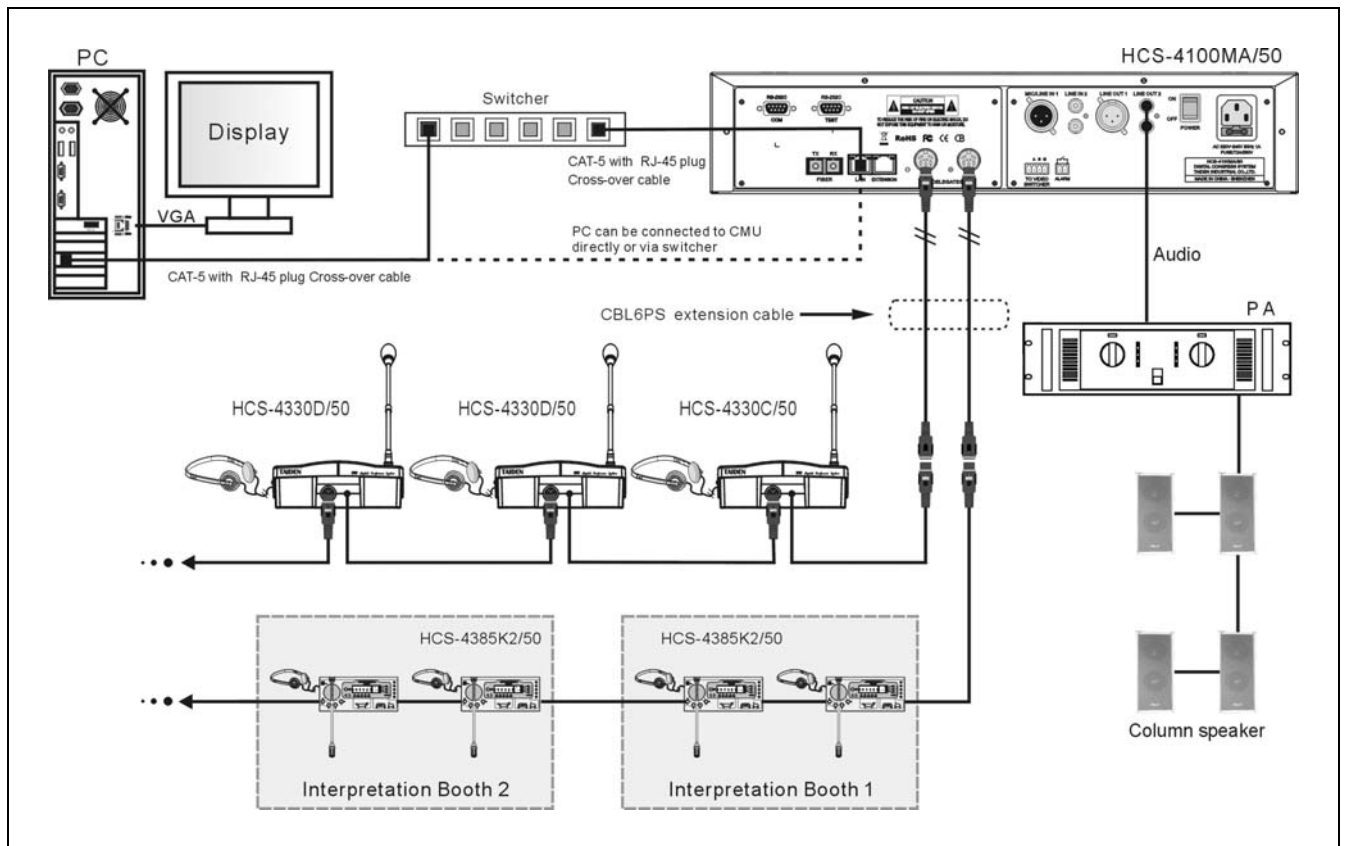


Figure 5.3 Congress main unit connecting to D-series contribution units and HCS-4385K2/50 interpretation units

5.1.3 Connection between the CMU/EMU and component contribution units

N series component contribution units (except HCS-4843DFE/DFKE/50) must be connected to the multi-function connectors, which for their part, are daisy-chained, starting at the CMU in order to be joined to the congress system. All connection cables are dedicated 6 Pin cables (as shown in figure 5.4).

- 1.A CMU has 2 x outlet connectors, which can be connected to 30 multi-function connectors each. A CMU can connect 60 multi-function connectors at most.;
- 2.A HCS-4340CA/50 multi-function connector can be connected to 1 chairman unit, 1 voting unit and 1 channel selector. (see section 3.8.1.2);

- 3.A HCS-4340DA/50 multi-function connector can be connected to 1 delegate unit, 1 voting unit and 1 channel selector. (see section 3.8.1.2);
- 4.A HCS-4340B/50 multi-function connector can be connected to 4 channel selectors. (see section 3.8.1.2);
- 5.One HCS-4340DT/50 multi-function connector can be connected to two delegate discussion units and two channel selectors (see section 3.8.1.2.);
- 6.A channel selector can be connected to a flush-mounted microphone by special cable; and a voting unit and a touched IC-card reader can be connected in the same way.

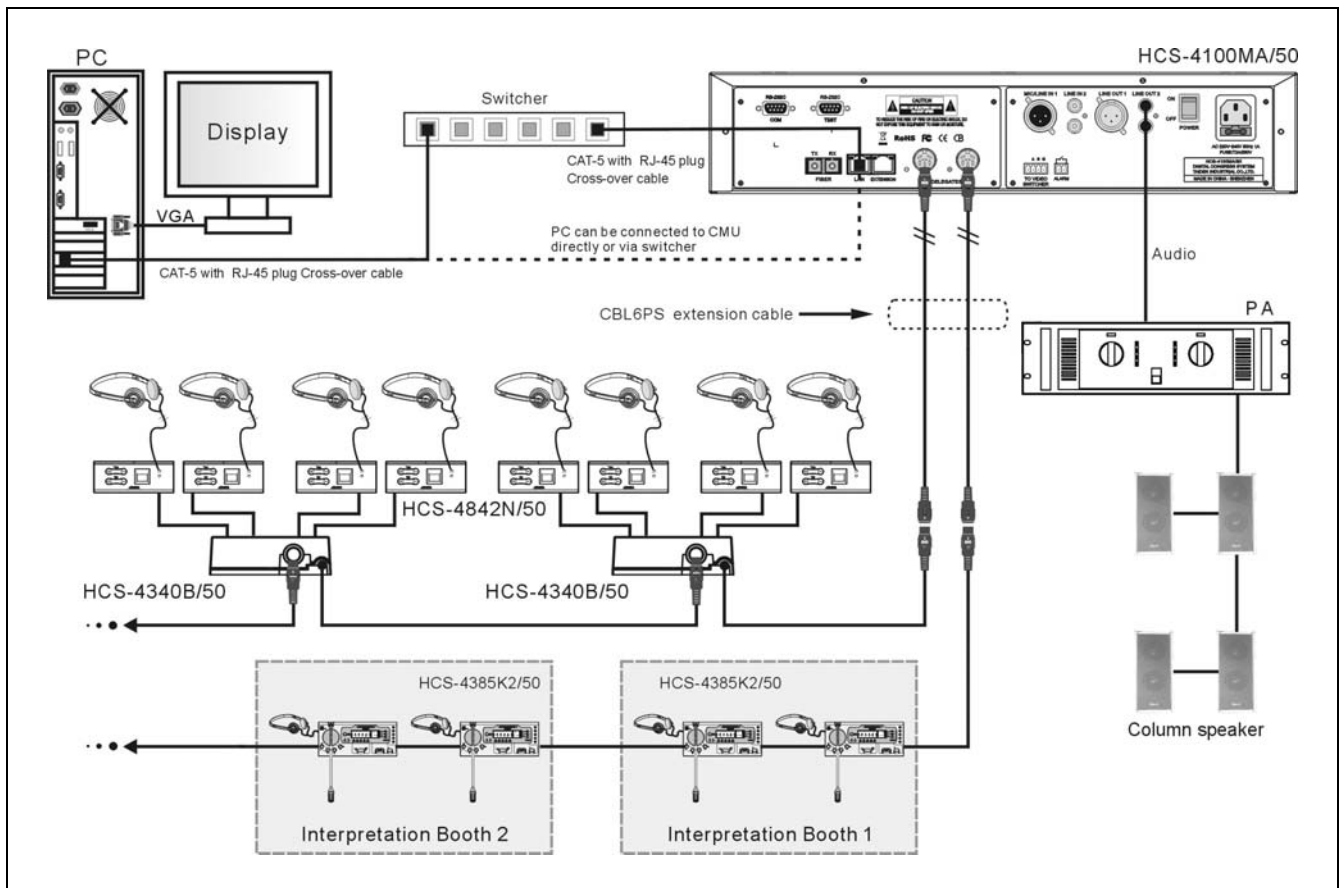


Figure 5.4 Congress main unit connecting to N-series contribution units and HCS-4385K2/50 interpretation units

5.1.4 Connection between HCS-4100/50 FDCS and automatic video tracking system

HCS-4100/50 FDCS can be connected to an automatic video tracking system. For video tracking purposes, the application software is used to make camera presets for every congress unit. If the congress unit is switched on, the video tracking system will find the appropriate preset and focus automatically on the speaker. The view of the speaker will be displayed on large screen(s) or other display devices. The automatic video tracking system is

compatible with several kinds of video signals and operates automatic video switching. The video tracking system is composed of video switcher, button board and high-speed dome camera.

Use a RS-485 cable and connect HCS-4100M/50 Main unit (port "TO VIDEO SWITCHER") to the corresponding port at the rear panel of the video switcher as shown in the following figure:

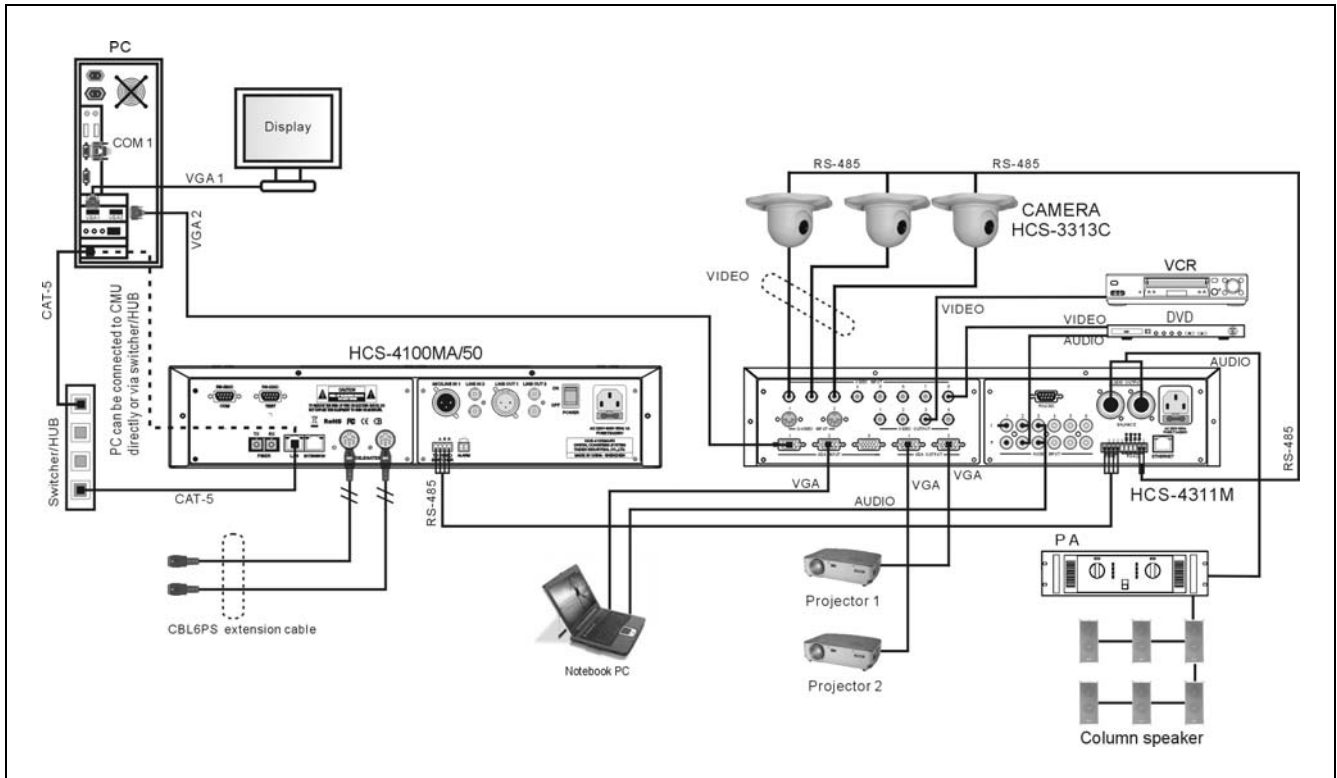


Figure 5.5 HCS-4100M/50 congress main unit connecting to the automatic video tracking system

5.1.5 Connection between HCS-4100/50 FDCS and digital infrared language distribution system

By connecting to the HCS-5100 digital infrared language distribution system, the audio signal of the HCS-4100M/50 CMU can be converted into an infrared signal and be transmitted. The participants can listen to the clear voice from the infrared receiver. Digital infrared language distribution system includes: digital infrared transmitter HCS-5100M/N series, digital infrared radiator HCS-5100T/S series and digital infrared transceiver HCS-5100R/RA series. TAIDEN digital infrared language distribution system has 4 series: 4CHs, 8CHs, 16CHs and 32CHs.

Install digital infrared radiators according to the area of the venue. In principle, the quantity of the receivers is unlimited, provided that they are all within the coverage area of the infrared signal.

■ CMU connecting to digital infrared language distribution system via HCS-5100MA/N

HCS-5100MA/N (or HCS-5100MAF/N) transmitter can be connected directly to HCS-4100M/50 CMU.

1. HCS-5100MA/N (or HCS-5100MAF/N) transmitter can be connected directly to HCS-4100M/50 CMU in three ways (only one of them can be used at one time):
 - Connect one outlet (6P-DIN) trunk-line cable connector of the HCS-4100/50 or the HCS-8300 CMU to "INTERPRETER'S UNIT / MAIN UNIT" interface of the HCS-5100MA/N (or HCS-5100MA F/N) transmitter with a dedicated 6 PIN cable.
 - Connect the "EXTENSION" interface of the HCS-4100/50 or HCS-8300 CMU to the "DCS" interface of the HCS-5100MA/N (or HCS-5100MA F/N) transmitter with a Cat. 5 cable.
 - Connect the fiber port of the HCS-4100A/50 or HCS-8300ME/F CMU to the fiber port of the HCS-5100MA F/N transmitter.
2. The digital infrared transmitter and radiator are linked up via a coaxial cable with 75 Ohm impedance. Connect one end (BNC) of the coaxial cable to the "HF OUT" port of the HCS-5100MA/N, and another end to the "MODULATION IN" of the radiator. If extra radiators are needed, connect the "MODULATION OUT" of the previous one to the "MODULATION IN" of the current one via the coaxial cable. Each outlet can connect up to 30 radiators, while the digital infrared transmitter provides 4 such outlets.

■ CMU connecting to digital infrared language distribution system via HCS-5100MC/N

The HCS-5100MC/N transmitter does not have a digital audio input interface, therefore connection to the HCS-4100M/50 CMU is realized via the HCS-8300MO 8CHs analog/digital audio output unit.

1. First, connect the "EXTENSION" interface of the HCS-4100/50 CMU to the "EXTENSION" interface of the HCS-8300MO with a Cat. 5 cable (or connect the HCS-4100/50 CMU and the HCS-8300MO with a dedicated 6 PIN cable or a fiber cable). The HCS-8300MO contains 8CHs symmetrical audio outputs (RCA) associated with 8CHs outputs of the interpretation units. The HCS-5100MC/N contains 4CHs, 8CHs, 16CHs and 32CHs analog audio inputs (RCA, "AUDIO IN CH0-CH7"), which can be connected accordingly to the output interface of the HCS-8300MO with audio wire.

Note: If more than 8 channels languages are required, extra HCS-8300MO is needed.

2. The digital infrared transmitter and the radiator are linked up via a coaxial cable with 75 Ohm impedance. Connect one end (BNC) of the coaxial cable to the "HF OUT" port of the HCS-5100MC/N, and another end to the "MODULATION IN" of the radiator. If an extra radiator is needed, connect the "MODULATION OUT" of the previous one to the "MODULATION IN" of the current one via the coaxial cable. Each outlet can connect up to 30 radiators, while the digital infrared transmitter provides 4 such outlets.

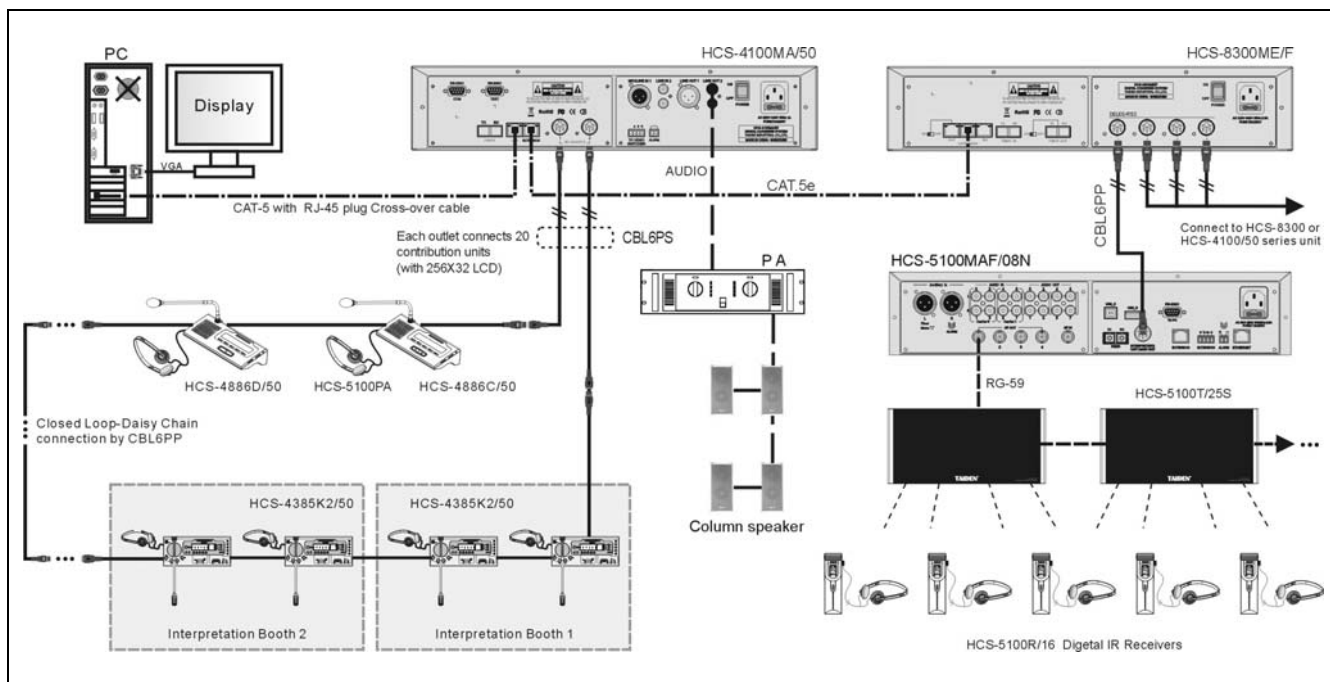


Figure 5.6 Congress main unit connecting to digital infrared language distribution system via HCS-5100MAF/N

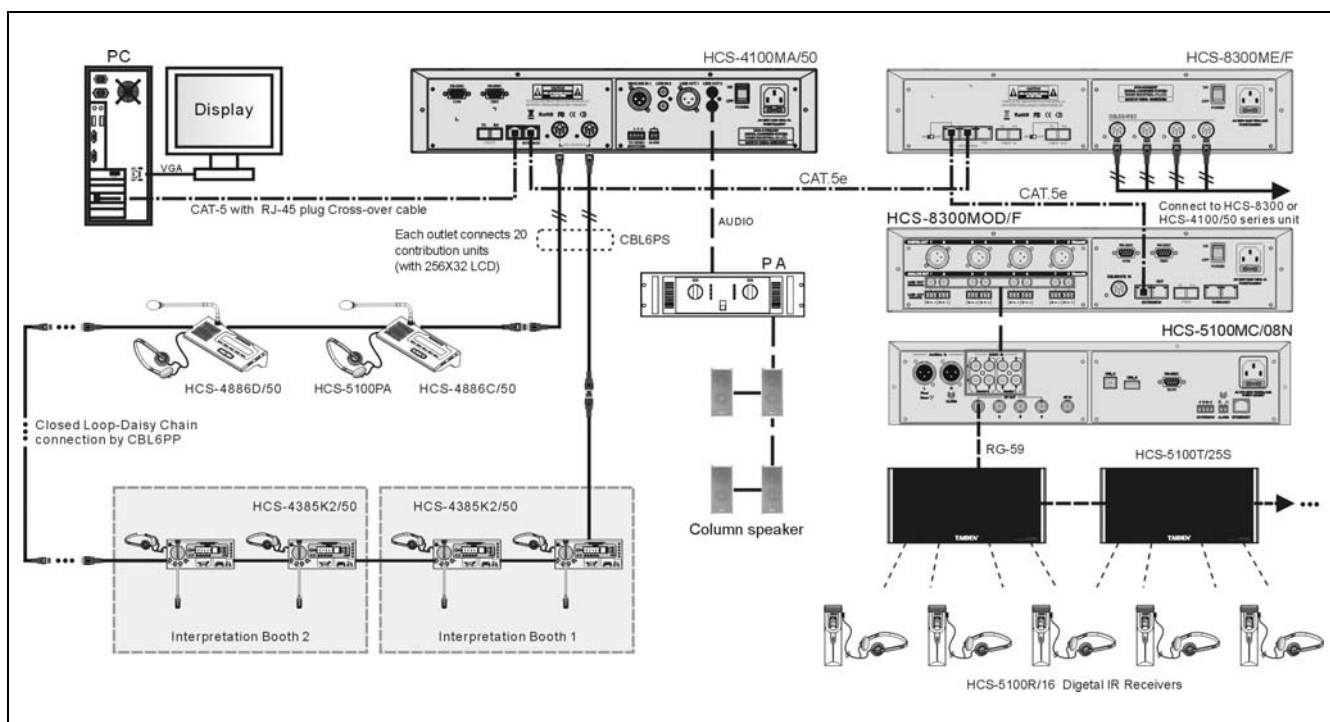


Figure 5.7 Congress main unit connecting to digital infrared language distribution system via HCS-5100MC/N

5.1.6 Connection between HCS-4100/50 FDGS and intelligent central control system

TAIDEN intelligent central control system is an advanced comprehensive control system. It can link together various devices, hardware and room & media equipment from different manufacturers. The central control system can operate the conferencing devices through wired Ethernet or wireless bidirectional communication by wired/wireless touch panel. Features include power controlling, environment light adjustment and on-off, electric curtain or projector screen open-close and on-off, system PA volume controlling and controlling various electric devices, such as DVD, VCR, TV, projector, etc. RS-232C or RS-485 interfaces are available. Remote controlling, even from distant places, can be achieved through LAN or internet.

TAIDEN HCS-6100 intelligent central control system and TAIDEN HCS-4100/50 FDGS can be joined together seamlessly. In addition to standard functions of a normal central touch panel control system, it can also control:

- ◆ Switch on/off the microphones of the congress units;
- ◆ Control video camera;
- ◆ If using the TAIDEN intelligent central control system touch panel to control the congress units, the ID of each congress unit should be known.

The connection of the HCS-4100/50 FDGS to the intelligent central control system is shown in figure 5.8.

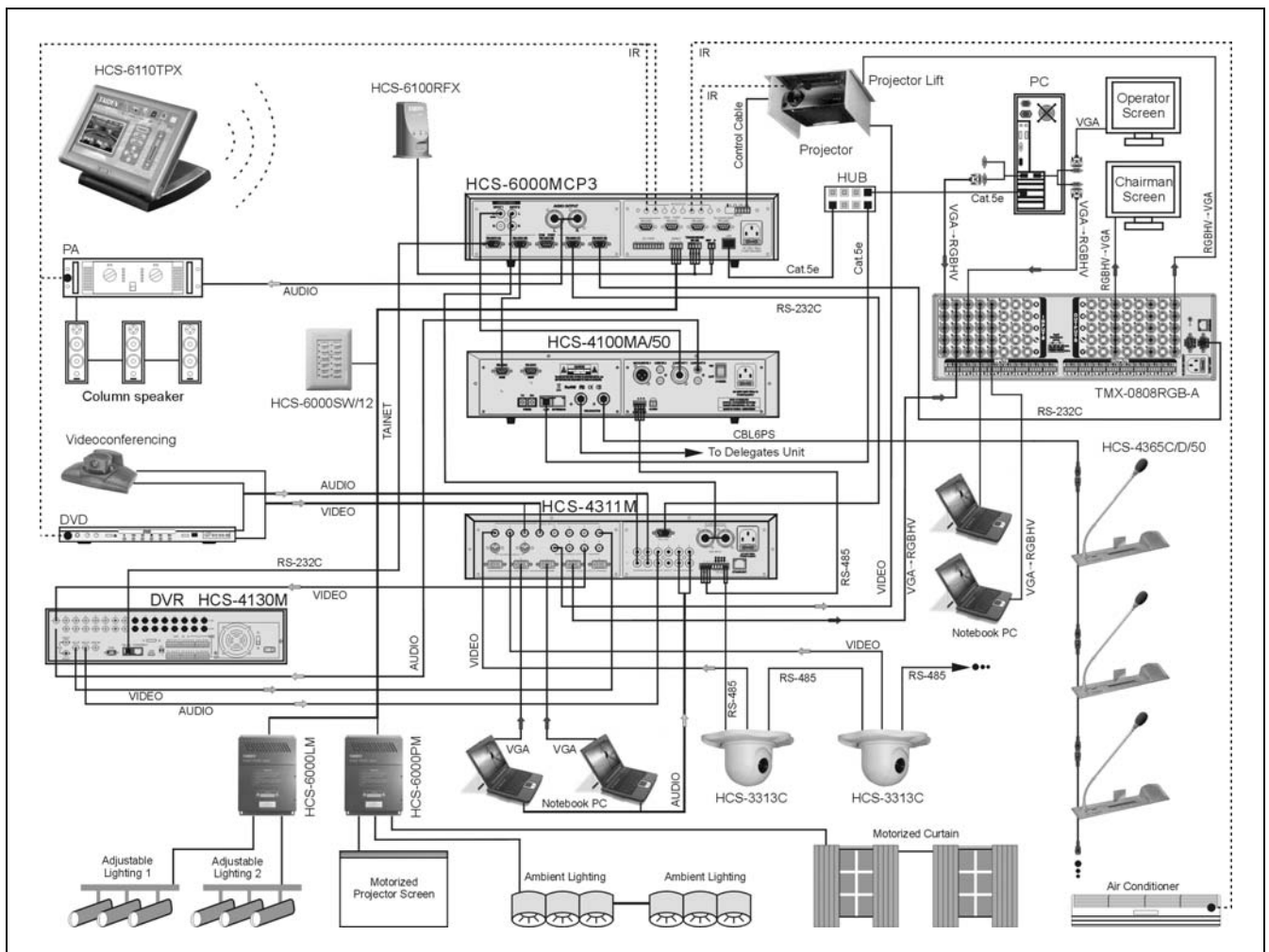


Figure 5.8 HCS-4100M/50 congress system main unit connecting to central control system

5.1.7 Connection between HCS-4100/50 FDCS and Congress sign-in system

The Congress Sign-in System (CSS, untouched) aims at providing a reliable, effective and convenient Congress sign-in solution for various large congresses. CSS makes the organizers get updated statistical data of the participants, including the expected number of participants, confirmed sign-in registrations, seat allocation etc; these data can be provided synchronously to all participants. Furthermore, the Congress moderator is updated automatically as he benefits from a real-time report system. Congress topics, agenda, procedure and related information can all be displayed on the large screen.

Intelligent Congress Sign-in System (ICSS) uses both remote RF card and close RF card sign-in technologies

(user can choose as needed). Portrait shots and customized surface design can be printed onto the RF card – combining delegate's accreditation and ID in a single card. The delegates carry out sign-in simply by walking through the access control containing the RF card reader: a significant simplification of the sign-in procedure and also a shortening of the sign-in time.

Client/server mode with anti-virus and security mechanism is also imported in the ICSS, moreover, the system is easy to update, to extend and to choose the application software.

Figure 5.9 shows the connection between CSS and HCS-4100/50 FDCS:

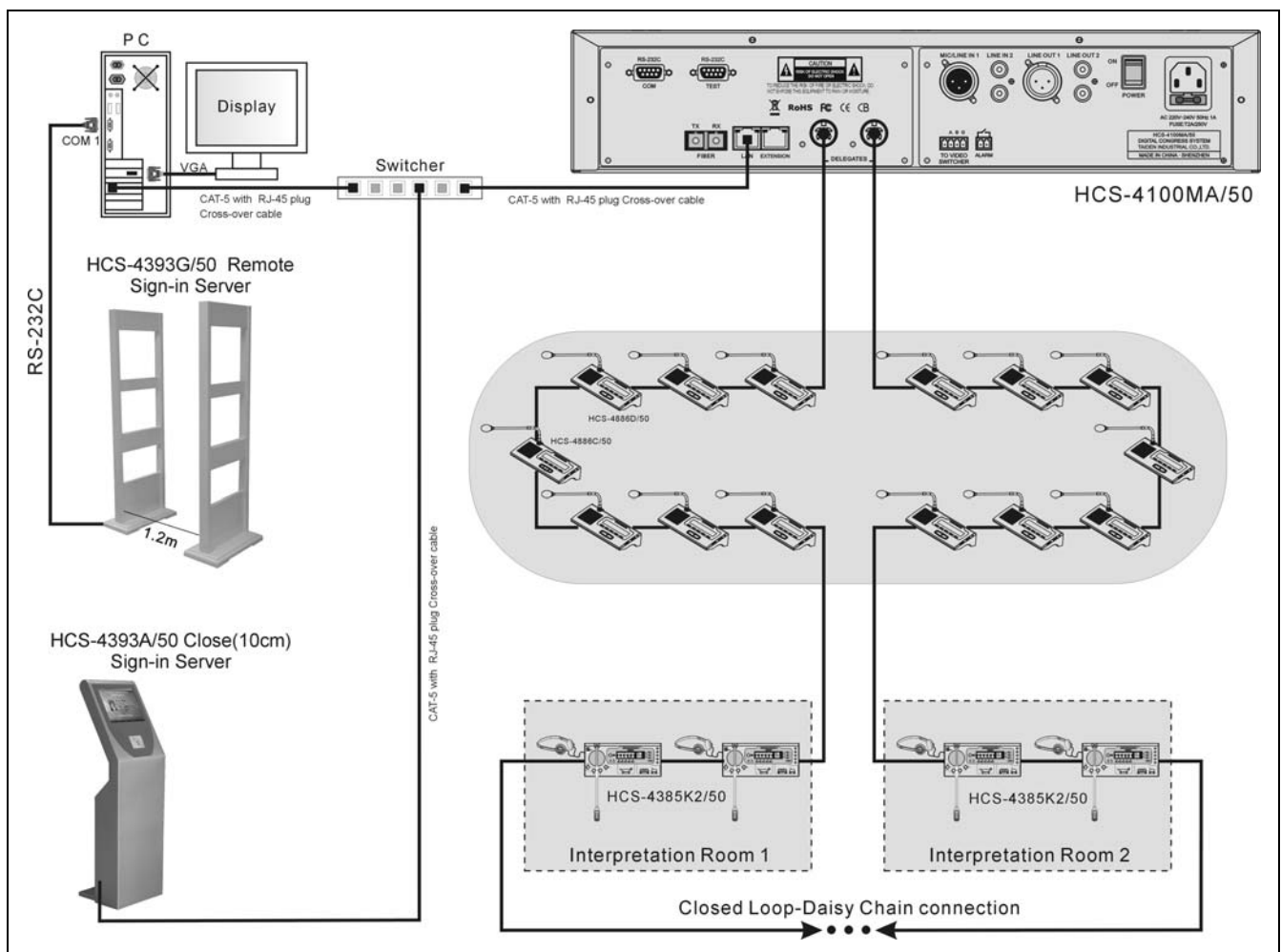


Figure 5.9 Connection between CSS and HCS-4100/50 FDCS

5.1.8 Combine/split congress rooms easily

Using CAT5 cable, several meeting rooms can be combined/separated at will through the HCS-8300MX Congress Room Combiner. One HCS-8300MX can combine up to 8 meeting rooms controlled by a Central Control System. (Several HCS-8300MX are cascable to combine additional meeting rooms).

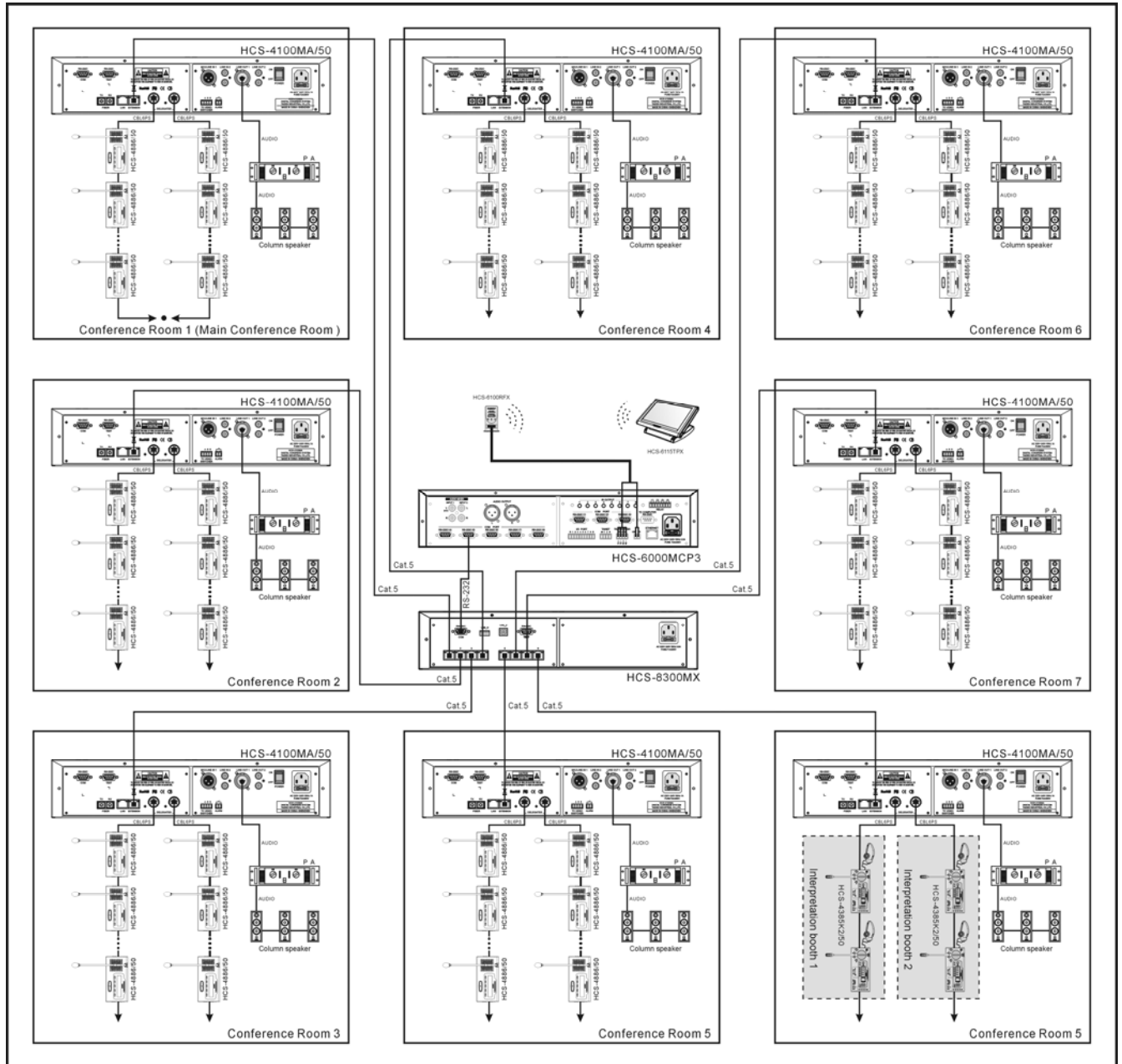


Figure 5.10 Combining/splitting meeting rooms with HCS-8300MX Congress Room Combiner and Cat. 5 cables

5.1.9 Total system hot spare

In the HCS-4100/50 system, the dual system main unit hot spare function cooperates with the dual PC server hot spare function, featuring multiple redundancies to realize total system hot spare function for highly enhanced system reliability.

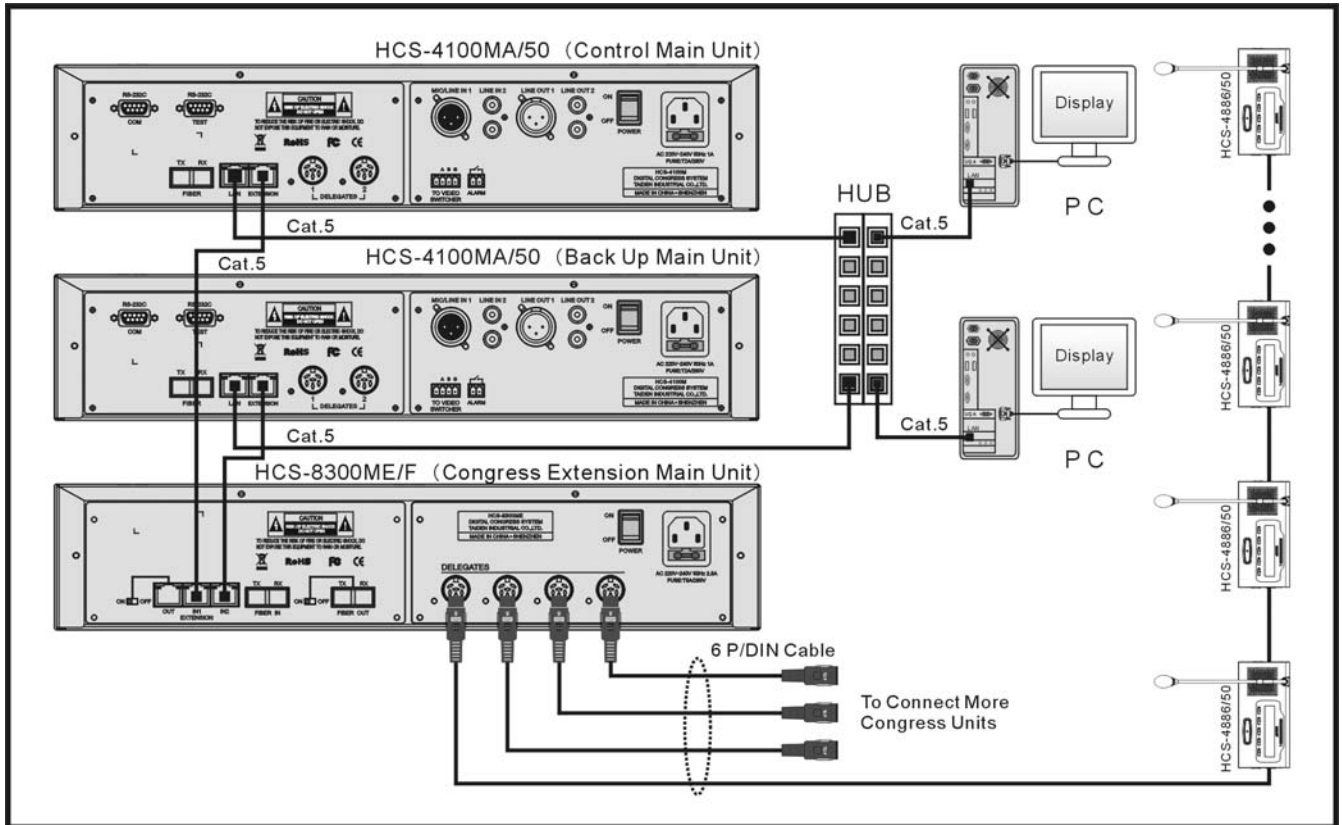


Figure 5.11 Dual System Main Unit Hot Spare

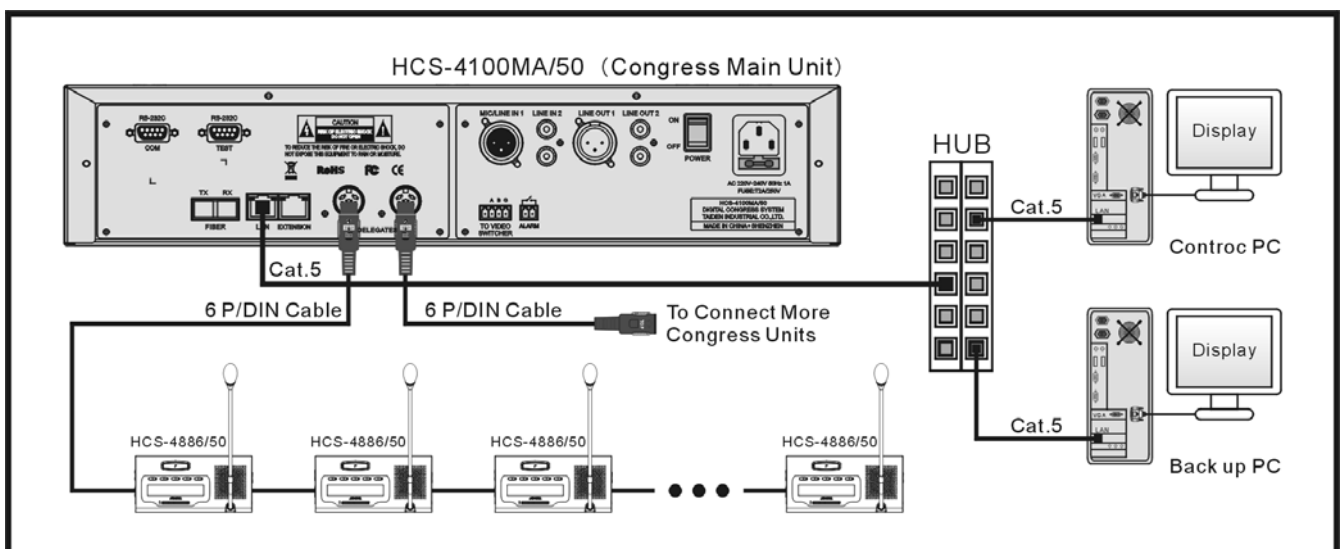


Figure 5.12 Dual PC server hot spare

5.2 Basic configuration of a congress system

The basic configuration is described below by a simple example.

This system is composed of one HCS-4100M/50 CMU, one HCS-8300ME/F EMU, four HCS-4385K2/50 interpretation units, ten HCS-4886/50 discussion units (including chairman unit and delegate units) and several HCS-4342N/50 channel selectors (connected to the system via the HCS-4340B/50 multi-function connector).

The connection diagram is shown in the following figure:

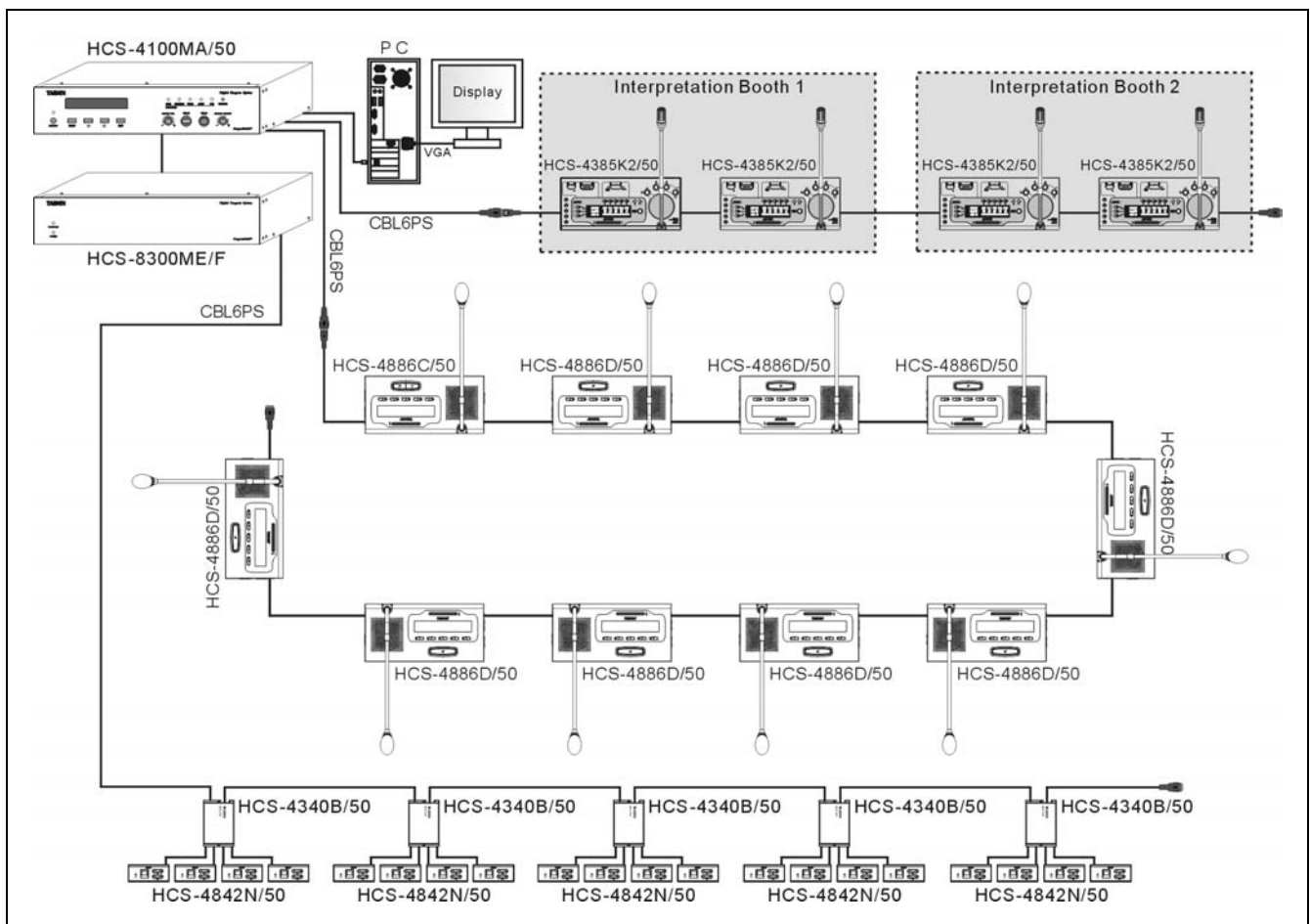


Figure 5.13 Connection example of HCS-4100/50 FDCS

According to the requirements of the specific case in this section, the configuration is as the following:

1. Configuration CMU

- a) **Active microphone number limitation:** active microphone number limitation limited to 2 implies that two microphones can be turned on at most. The chairman unit and the VIP unit are not restricted and do not count in this limitation.
- b) **Speech mode:** speech mode is set to "Open", none other delegate can turn on his/her microphone if the current speaker does not turn off his/her microphone.
- c) **Simultaneous interpretation - language channel configuration:** Assuming that three languages are used by the delegates, including Chinese, English and French, meaning that three kinds of language channels are needed, respectively, set channel 1 – Chinese, channel 2 - English and channel 3 - French.
- d) **Simultaneous interpretation – booth number configuration:** The booth number is set as 2. Translation between English-Chinese and French-Chinese respectively.
- e) **Simultaneous interpretation - output channel configuration:** **Booth 1:** output channel A is English, output channel C is "No output" and output channel B is "All channels" - two interpretation units. **Booth 2:** output channel A is French, output channels B and C are "No output" - two interpretation units.
- f) Chairman priority mode is set as "All mute".

2. Configure interpretation units in booth 1 (the configuration of both interpretation units is the same)

- a) Channel B output: pressing output channel B switch and rotating Primary knob at the same time, and set Chinese as channel B output language.
- b) Booth number is set to 1.
- c) Preset monitoring channel. Channel a, b, c are set as 1-Chinese, 2-English and 3-French respectively.
- d) Auto relay booth number is set to 0, meaning that no relay interpretation is needed.

3. Configure interpretation units in booth 2 (the configuration of both interpretation units is the same)

- a) Channel B output does not need to be setup (because output channel B of booth 2 is set as "No output" in CMU configuration).
- b) Booth number is set to 2.
- c) Preset monitoring channel. Channel a, b, c are set as 1-Chinese, 2-English and 3-French respectively.
- d) Auto relay booth number is set to 1, meaning that one booth is needed for auto relay purposes.
- e) Set auto relay number of booth as 1, meaning that booth #1 is the auto relay booth for booth #2. When booth #1 uses output channel B, booth #2 will go to auto relay status automatically and auto relay interpretation will be achieved.

4. Volume control

Turn on the delegate/chairman unit and adjust the volume of the built-in loudspeaker on the congress units to a suitable volume.

5. Finish configuration, and the system can work now.

Chapter 6 Peripheral equipment and accessories

6.1 Microphone

● Removable stem microphone

For the congress unit



For the interpretation unit



Functions and instructions:

1. Electret condenser cardioid microphone

2. Two-color microphone on/off LED ring

- When the microphone is turned on, the LED ring lights up red;
- When requesting to speak, the LED ring changes to blue;

3. Metal stem with goose-neck to adjust angle and direction freely

4. Socket with screw thread. The stem microphone can be removed and collected during the adjournment

● M-style Foam Windshield



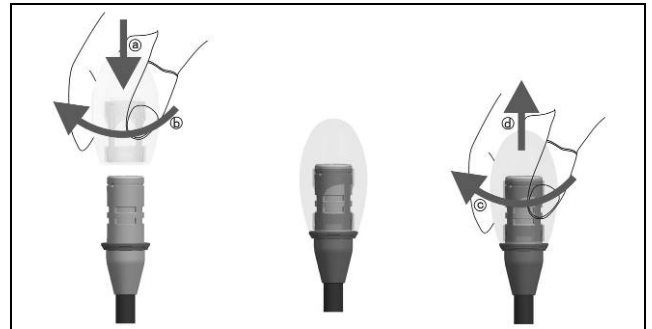
Installing and detaching the foam windshield

Installing:

- Put the windshield over the microphone
- Rotate the windshield clockwise and tighten until a click sound is audible

Detaching:

- Rotate the windshield counterclockwise
- When the correct angle is reached it can be pulled out easily with soft power



The pluggable stem microphone equipped with the M-style Foam Windshield is shown in the following figure:



● HCS-1020 Led clip microphone



6.2 Earphones

The jack plug of the stereo headphone can be inserted into a Ø 3.5 mm stereo headphone jack socket. Applicable types include:

- EP-820AS single earphone



- EP-820BS single earphone



- EP-920BS earbuds



- HCS-5100PA headphone



- For other compatible types (see chapter 8, Technical Data).

6.3 Accessories

Some dedicated accessories are involved in the connection of conference system devices. Herein, these accessories are introduced, including:

- CBL6PS 6PIN dedicated extension cable
- CBL6PP-02 dedicated 6-cord extension cable
- HVS-100H video adapter
- 9PIN RS-232 cable
- CAT5 cable
- HCS-4352 6PIN cable distributor

1. CBL6PS 6PIN dedicated extension cable

- ①.Male
- ②.Female or male

Note: seven types are available: 3-meter, 5-meter, 10-meter, 20-meter, 30-meter, 40-meter and 50-meter.



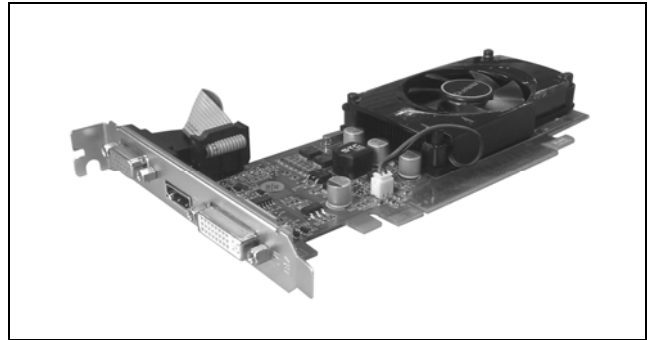
2. CBL6PP-02 dedicated 6-cord extension cable

- Male connector at both ends
- 2-meter long



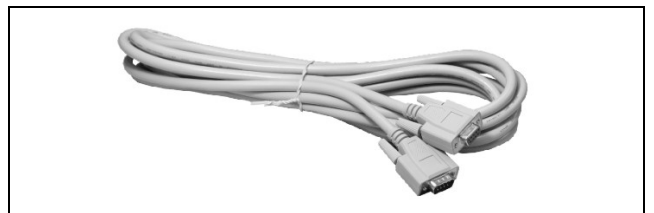
3. HVS-100P video adapter

- Supporting conference system display
- Installed inside the PC
- DVI connector and accompanied by a DVI-VGA adapter head



4. 9PIN RS-232 cable

- Connecting the CMU and the central control system main unit
- Male connector at one end and female connector at the other end.
- 3-meter long, or 15-meter long



5. CAT5 cable

- Connecting the CMU and the PC
- Ethernet crossover cable with RJ-45 connector at both ends
- 3-meter long



6. HCS-4352 6PIN cable distributor

- With relay function, for signal regeneration;
- One input / two output structure, congress units or extension cables can be connected with dedicated 6-cord cable;
- With 2-meter long input cable - convenient for connection;
- Extension cable length: up to 100m.



Chapter 7 Working environment and maintenance

Suitable working environment and proper maintenance methods can extend service life of the equipment effectively. For maintenance please read the contents of this section carefully.

7.1 Public areas

In public areas ensure that the cables attached to the system units, including extension cables, are run and laid out in a neat and tidy manner where they do not interfere and hinder public walk ways.

It is recommended that the chairman unit and the interpretation units are connected at the beginning of a trunk line and not at the end. In public areas where connectors and cables could be trampled on, it is strongly suggested to use protective covers according to the existing protection specifications.

Due to the directivity of the microphone used in the discussion units, every speaker should face the microphone at a convenient distance when speaking, to achieve both best audibility and intelligibility.

7.2 Technical rooms

It is recommended to meet the following conditions for technical rooms where HCS-4100/50 central control equipment is housed:

- ◆ Ensure that the area is a dust-free environment.
- ◆ Ensure adequate ventilation.
- ◆ Ensure adequate lighting. But be sure that the lighting does not impede the operator in the control room and the normal system operation.
- ◆ Do not place objects on the top of units. They could fall into vents or could cover them and thus prevent proper cooling of electronic components inside the units. By falling into a unit, objects could cause trouble such as fire and electric shock.
- ◆ To avoid the risk of shock or permanent damage to the system units, do not expose units to rain or moisture.

- ◆ Do not attempt to remove the top cover of the system main units as you will be exposed to a shock hazard. The covers should only be removed by qualified service personnel. If any repair or maintenance is required, contact the TAIDEN service center in your region.
- ◆ Equipment is only for indoor use. Do not expose it to sunlight.

WARNING: Damage to the power cable may cause fire or a shock hazard!

7.3 Interpreter booths

Pressure and speed of work at most international congresses imply that interpreters have to take turns and to turn about to keep pace and to ensure a steady flow of smooth interpretation. Therefore every interpreter booth has to have an adequate size to accommodate at least two or three interpreters, depending on the present needs. Following a brief summary, according to the specifications for interpreter booths as drawn up in the ISO standards:

- ◆ In the hall, booths should be set up at the back or sideways.
- ◆ Booths should be elevated to provide an overall, unobstructed direct view of the chairman, the speakers and any other relevant visual aids.
- ◆ A window should be installed at the forefront of the booth across the overall length.
- ◆ An adequate size of the interpretation booth is recommended in order to accommodate the normal activities of the interpreter.
- ◆ Adequate air conditioning, temperature and lighting are required.
- ◆ ISO-4043 Mobile booths for simultaneous translation
- ◆ ISO-2603 Fixed booths for simultaneous translation

7.4 System operator room

In a PC based system, the operator needs a dedicated room to operate the PC and to manage the congress procedure. Generally, the demands on the operator room are the same as on the interpreter booth. By means of a microphone system, the operator should also be connected to a public - address system to remind the participants of operations, such as voting, signing-in, etc.

7.5 Ventilation

Maintain good ventilation: ventilation holes are provided on top of the main units. Place the units on a hard and level surface to ensure proper ventilation.

7.6 Cleaning

Do not use alcohol, ammonia or petroleum based liquids or abrasive cleaners to clean the equipment. Unplug first and clean with a soft cloth slightly dampened with mild soap and water solution. Assure yourself that the relevant unit is dry before operating it.

7.7 Storage

If the units are not to be used for a long period of time, disconnect the mains supply from all mains supplied units. Store them in a dust-free dry area with adequate ventilation.

Chapter 8 Technical specifications

8.1 System specifications

System performance

Conforms to IEC 60914, the international standard for congress systems

System environmental conditions

Working conditions fixed/stationary/transportable

Temperature range:

- Transport: -40 °C to +70 °C
- Operating: 0 °C to +45 °C

Max. relative humidity: < 95% (not condensing)

Safety: Compliant to EN 60065

EMC emission: Compliant to EN 61000-6-3, EN 55022

EMC immunity: Compliant to EN 61000-4-3

EMC approvals: CE

Electrostatic discharge immunity: Compliant to EN 61000-4-2

Power harmonics: Compliant to EN 61000-3-2

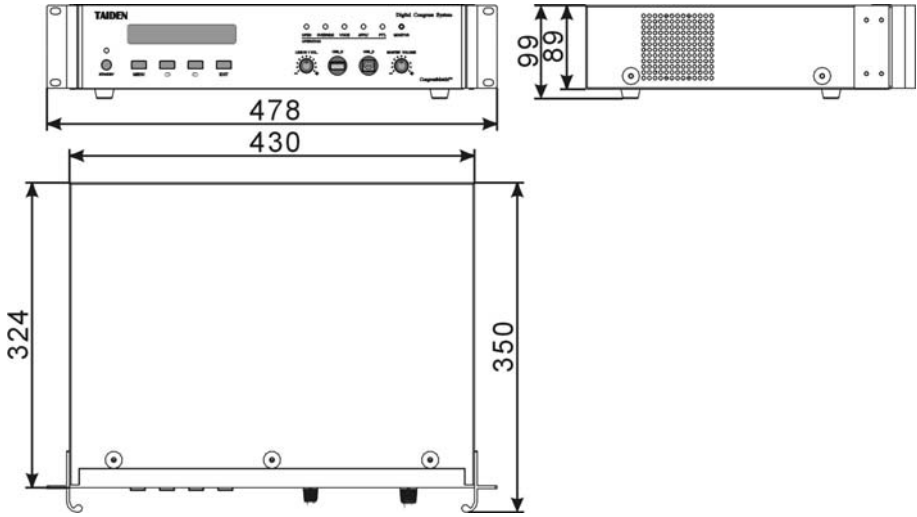
Surge resistance: Compliant to EN61000-4-5

EFT test: Compliant to EN61000-4-4

Transient power-off test: Compliant to EN61000-4-11

8.2 Congress system main unit

8.2.1. Physical characteristics

Types	HCS-4100MA/50	HCS-4100MB/50	HCS-4100MC/50
Installation	Tabletop / standard 19-inch rackmount		
Dimensions (mm)			
Color	White		
Weight	7.8 kg		

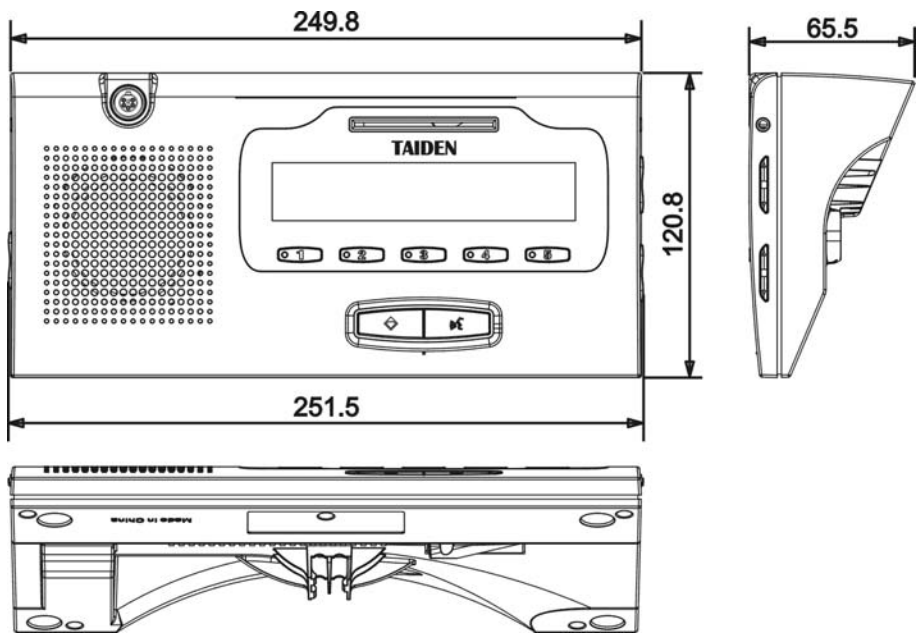
8.2.2. Electrical characteristics

Types	HCS-4100MA/50	HCS-4100MB/50	HCS-4100MC/50
Microphone capacity	≤4096		
Channels	64CH		-
Frequency response	30 ~ 20000 Hz		
SNR	>96 dBA		
Dynamic range	>94 dB		
Crosstalk	>85 dB		
Total harmonic distortion	<0.05%		
Mains power supply	110 V or 220 V AC		
Audio input	LINE IN 1: +10 dBu balanced LINE IN 2: +10 dBu unbalanced		
Audio output	LINE OUT 1: +20 dBu balanced LINE OUT 2: +20 dBu unbalanced		
Output load	>1 kΩ		
Control interface	9 PIN, D-type female head, connecting the central control system main unit		
	RJ45 Ethernet, connecting to PC		
Maximum power consumption	200 W		
Connection	Dedicated cable (6 PIN)		
Connector	DIN6P with buckle		

8.3 Congress unit

8.3.1 G-series congress unit

8.3.1.1 Physical characteristics

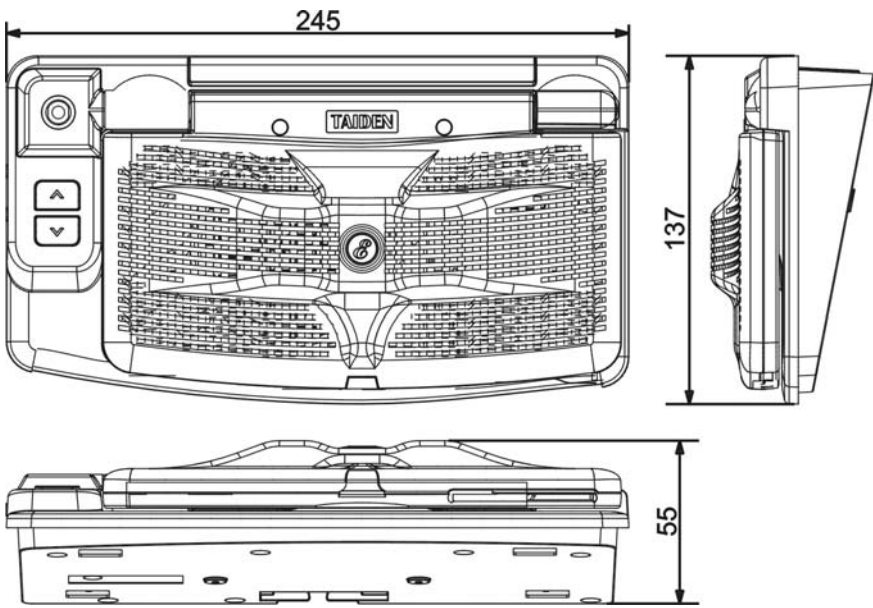
Types	HCS-4886/87/88 /50
Installation	Tabletop/Flush-mounted
Dimensions (mm)	 Technical drawing of the HCS-4886/87/88 /50 congress unit. The front view shows a width of 249.8 mm and a height of 120.8 mm. The bottom view shows a width of 251.5 mm. The side view shows a depth of 65.5 mm. The unit features a speaker grille on the left, a central display and control panel with the 'TAIDEN' logo, and a small display at the bottom. The bottom view shows the unit's base and mounting feet.
Color	tulip gold panel + grey base or tulip gold panel + black base
Weight	0.75 kg

8.3.1.2 Electrical characteristics

Types		HCS-4886/87/88 /50
Output frequency response		30 ~ 20000 Hz
Earphone load		>16 Ω
Earphone volume		10 mW
Earphone output		Ø 3.5 mm stereo jack
Max. power consumption		2.3 W (with 256×32 LCD) 1.8 W (without 256×32 LCD)
Connection		6P- DIN dedicated cable with buckle
Microphone	Type	Uni-directional electret condenser microphone
	Sensitivity	-46 dBV/Pa
	Frequency response	50 ~ 20000 Hz
	Input impedance	2 kΩ
	Directivity 0°/180°	> 20 dB (1 kHz)
	Equivalent noise	20 dBA (SPL)
	Maximum sound pressure level	125 dB (THD<3%)

8.3.2 E-series congress unit

8.3.2.1 Physical Characteristics

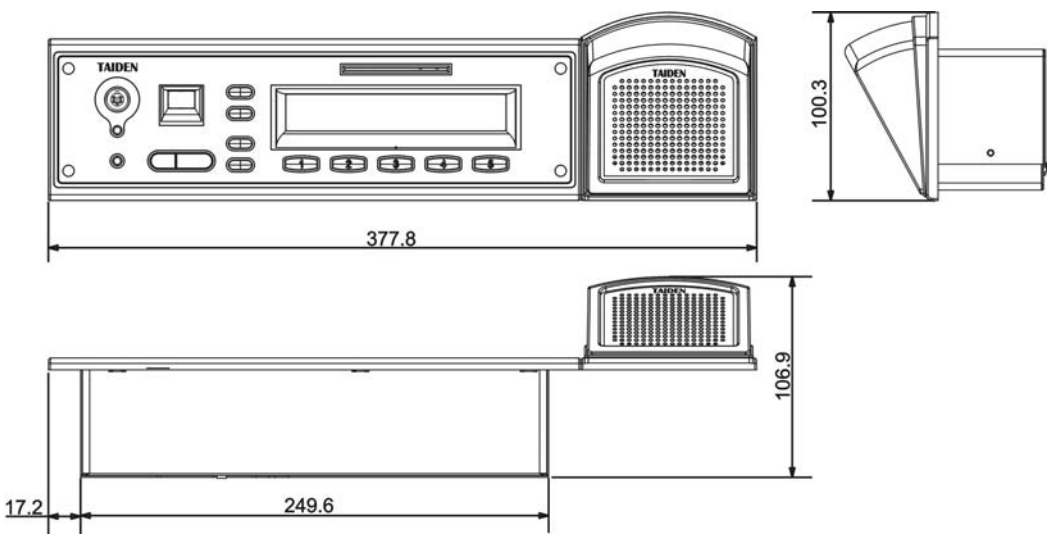
Types	HCS-4370/71/80/82 /50
Installation	Tabletop/Flush-mounted
Dimensions (mm)	
Color	Gray
Weight	1.68 kg

8.3.2.2 Electrical Characteristics

Types		HCS-4370/71/80/82 /50
Output frequency response		30 ~ 20000 Hz
Earphone load		>16 Ω
Earphone volume		10 mW
Earphone output		Ø 3.5 mm stereo jack
Max. power consumption		2.3 W (with 256×32 LCD) 1.8 W (without 256×32 LCD)
Connection		6P- DIN dedicated cable with buckle
Microphone	Type	Uni-directional electret condenser microphone
	Sensitivity	-46 dBV/Pa
	Frequency response	50 ~ 20000 Hz
	Input impedance	2 kΩ
	Directivity 0°/180°	> 20 dB (1 kHz)
	Equivalent noise	20 dBA (SPL)
	Maximum sound pressure level	125 dB (THD<3%)

8.3.3 Q-series congress unit

8.3.3.1 Physical Characteristics

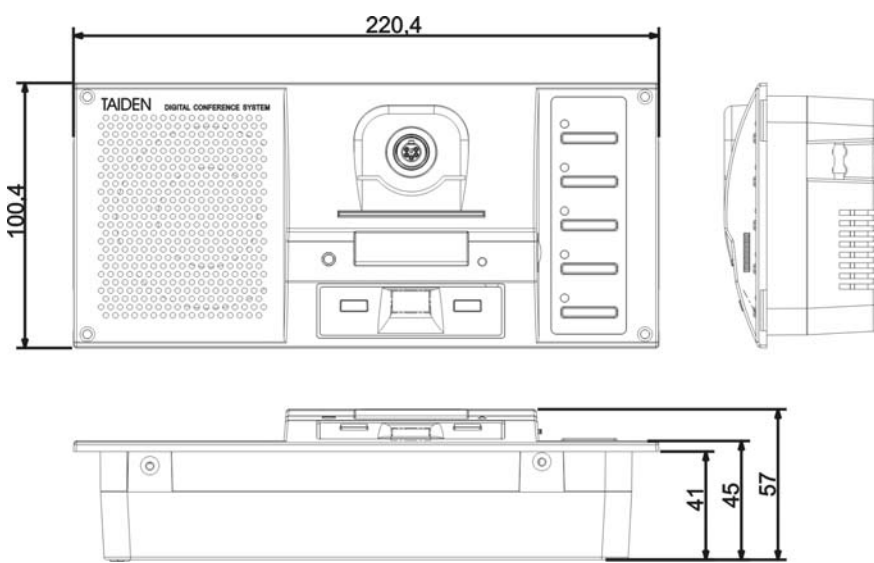
Types	HCS-4365/66 /50
Installation	Flush-mounted
Dimensions (mm)	 The drawing shows the unit's dimensions in millimeters. The front view has a width of 377.8 mm and a height of 100.3 mm. The side view shows a depth of 106.9 mm. The top view shows a width of 249.6 mm and a depth of 17.2 mm. The unit is labeled 'TAIDEN'.
Color	Silver
Weight	1.68 kg

8.3.3.2 Electrical Characteristics

Types		HCS-4365/66 /50
Output frequency response		30 ~ 20000 Hz
Earphone load		>16 Ω
Earphone volume		10 mW
Earphone output		Ø 3.5 mm stereo jack
Max. power consumption		2.3 W (with 256×32 LCD) 1.8 W (without 256×32 LCD)
Connection		6P- DIN dedicated cable with buckle
Microphone	Type	Uni-directional electret condenser microphone
	Sensitivity	-46 dBV/Pa
	Frequency response	50 ~ 20000 Hz
	Input impedance	2 kΩ
	Directivity 0°/180°	> 20 dB (1 kHz)
	Equivalent noise	20 dBA (SPL)
	Maximum sound pressure level	125 dB (THD<3%)

8.3.4 M-series congress unit

8.3.4.1 Physical Characteristics

Types	HCS-4360/61/62/63 /50
Installation	Flush-mounted
Dimensions (mm)	 The drawing shows the physical dimensions of the unit. The front view has a width of 220.4 mm and a height of 100.4 mm. The side view shows a depth of 41 mm. The top view shows a width of 45 mm and a height of 57 mm. The unit is labeled 'TAIDEN DIGITAL CONFERENCE SYSTEM'.
Color	Gray
Weight	0.72 kg

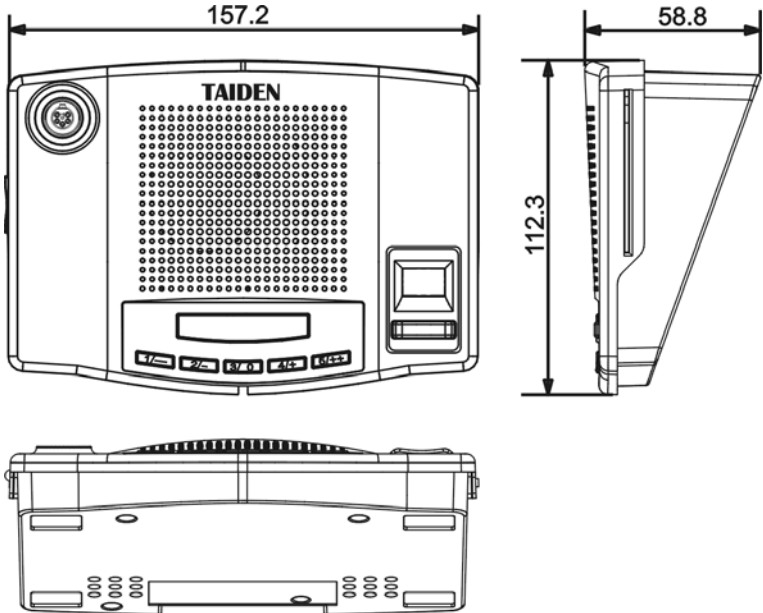
8.3.4.2 Electrical Characteristics

Types		HCS-4360/61/62/63 /50
Output frequency response		30 ~ 20000 Hz
Earphone load		>16 Ω
Earphone volume		10 mW
Earphone output		Ø 3.5 mm stereo jack
Max. power consumption		1.8 W
Connection		6P- DIN dedicated cable with buckle
Microphone	Type	Uni-directional electret condenser microphone
	Sensitivity	-46 dBV/Pa
	Frequency response	50 ~ 20000 Hz
	Input impedance	2 kΩ
	Directivity 0°/180°	> 20 dB (1 kHz)
	Equivalent noise	20 dBA (SPL)
	Maximum sound pressure level	125 dB (THD<3%)

8.3.5 D-series congress unit

8.3.5.1 HCS-4330/32 /50 series congress unit

1. Physical Characteristics

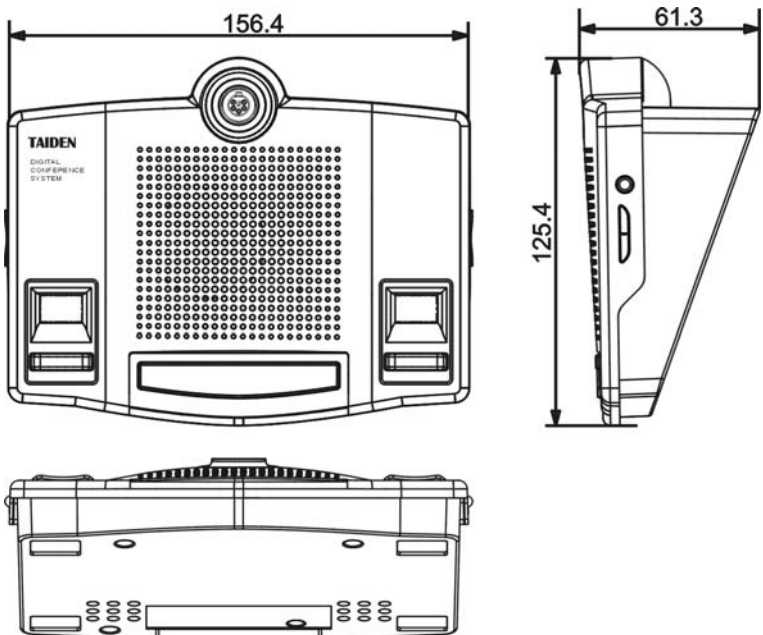
Types	HCS-4330/32 /50
Installation	Tabletop
Dimensions (mm)	
Color	Gray/Silver
Weight	0.74 kg

2. Electrical Characteristics

Types		HCS-4330/32 /50
Output frequency response		30 ~ 20000 Hz
Earphone load		>16 Ω
Earphone volume		10 mW
Earphone output		Ø 3.5 mm stereo jack
Max. power consumption		1.8 W
Connection		6P- DIN dedicated cable with buckle
Microphone	Type	Uni-directional electret condenser microphone
	Sensitivity	-46 dBV/Pa
	Frequency response	50 ~ 20000 Hz
	Input impedance	2 kΩ
	Directivity 0°/180°	> 20 dB (1 kHz)
	Equivalent noise	20 dBA (SPL)
	Maximum sound pressure level	125 dB (THD<3%)

8.3.5.2 HCS-4331/33/35 /50 series congress unit

1. Physical Characteristics

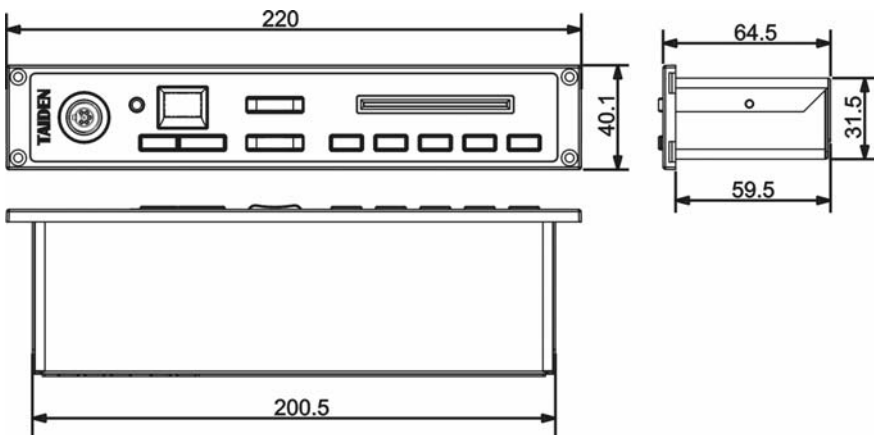
Types	HCS-4331/33/35 /50
Installation	Tabletop
Dimensions (mm)	
Color	Gray/Silver
Weight	0.74 kg

2. Electrical Characteristics

Types		HCS-4331/33/35 /50
Output frequency response		20 ~ 20000 Hz
Earphone load		>16 Ω
Earphone volume		10 mW
Earphone output		Ø 3.5 mm stereo jack
Max. power consumption		1.5 W
Connection		6P- DIN dedicated cable with buckle
Microphone	Type	Uni-directional electret condenser microphone
	Sensitivity	-46 dBV/Pa
	Frequency response	50 ~ 20000 Hz
	Input impedance	2 kΩ
	Directivity 0°/180°	> 20 dB (1 kHz)
	Equivalent noise	20 dBA (SPL)
	Maximum sound pressure level	125 dB (THD<3%)

8.3.6 L-series congress unit

8.3.6.1 Physical Characteristics

Types	HCS-4320/21/22 /50
Installation	Flush-mounted
Dimensions (mm)	 Technical drawing showing the dimensions of the HCS-4320/21/22 /50 unit. The front view shows a width of 220 mm and a height of 40.1 mm. The side view shows a depth of 64.5 mm and a height of 31.5 mm. The top view shows a width of 200.5 mm and a depth of 59.5 mm.
Color	Gray
Weight	0.9 kg

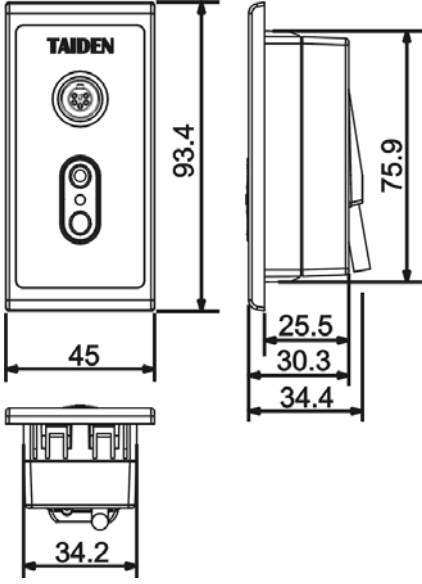
8.3.6.2 Electrical Characteristics

Types		HCS-4320/21/22 /50
Output frequency response		30 ~ 20000 Hz
Earphone load		>16 Ω
Earphone volume		10 mW
Earphone output		Ø 3.5 mm stereo jack
Max. power consumption		1.3 W
Connection		6P- DIN dedicated cable with buckle
Microphone	Type	Uni-directional electret condenser microphone
	Sensitivity	-46 dBV/Pa
	Frequency response	50 ~ 20000 Hz
	Input impedance	2 kΩ
	Directivity 0°/180°	> 20 dB (1 kHz)
	Equivalent noise	20 dBA (SPL)
	Maximum sound pressure level	125 dB (THD<3%)

8.3.7 C-series congress unit

8.3.7.1 HCS-4341A/50 series congress unit

1. Physical Characteristics

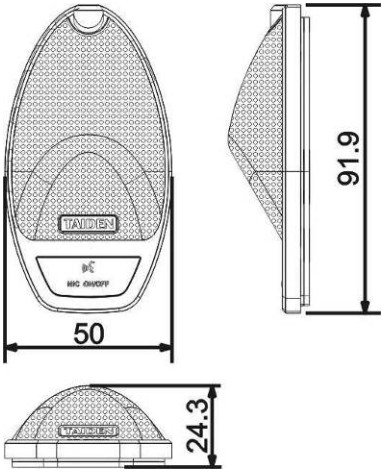
Types	HCS-4341CA/50 and HCS-4341DA/50
Installation	Flush-mounted
Dimensions (mm)	 Technical drawing showing the dimensions of the HCS-4341CA/50 and HCS-4341DA/50 congress unit. The front view shows a height of 93.4 mm and a width of 45 mm. The side view shows a depth of 75.9 mm. The bottom view shows a width of 34.2 mm. The side view also shows a depth of 25.5 mm, a depth of 30.3 mm, and a depth of 34.4 mm.
Color	Gray/Silver
Weight	0.1 kg

2. Electrical Characteristics

Types		HCS-4341CA/50 and HCS-4341DA/50
Output frequency response		30 ~ 20000 Hz
Connection		CAT5 cable with standard RJ45 plug, connecting to multi-function connector
Microphone	Type	Uni-directional electret condenser microphone
	Sensitivity	-46 dBV/Pa
	Frequency response	50 ~ 20000 Hz
	Input impedance	2 kΩ
	Directivity 0°/180°	> 20 dB (1 kHz)
	Equivalent noise	20 dBA (SPL)
	Maximum sound pressure level	125 dB (THD<3%)

8.3.7.2 HCS-4341B /50 series congress unit

1. Physical Characteristics

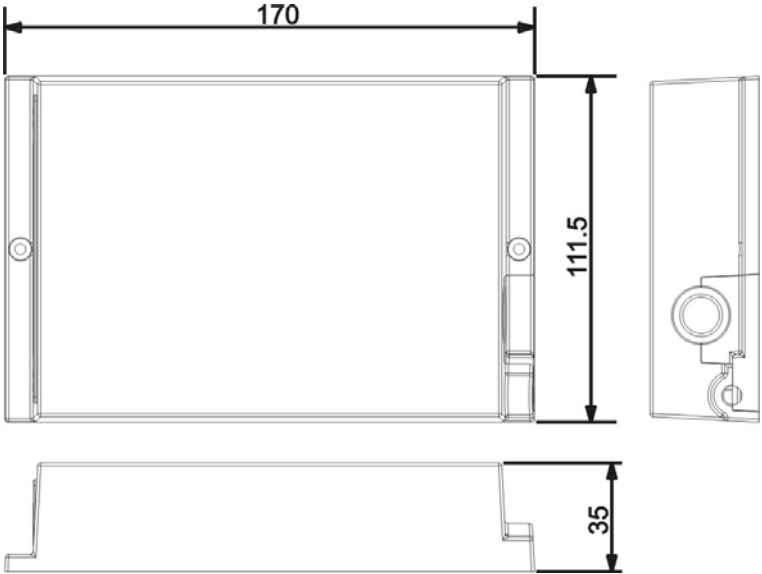
Types	HCS-4341B/50
Installation	Tabletop
Dimensions (mm)	
Color	Black
Weight	80 g

2. Electrical Characteristics

Types		HCS-4341B/50
Output frequency response		30 ~ 20000 Hz
Connection		CAT5 cable with standard RJ45 plug, connecting to multi-function connector
Microphone	Type	Uni-directional electret condenser microphone
	Sensitivity	-46 dBV/Pa
	Frequency response	50 ~ 20000 Hz
	Input impedance	2 kΩ
	Directivity 0°/180°	> 20 dB (1 kHz)
	Equivalent noise	20 dBA (SPL)
	Maximum sound pressure level	125 dB (THD<3%)

8.3.7.3 HCS-4340/50 multi-function connector

1. Physical Characteristics

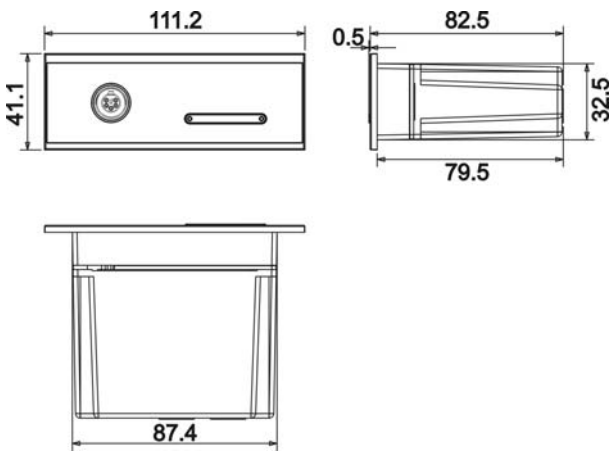
Types	HCS-4340/50
Installation	Fixed installation
Dimensions (mm)	
Color	Gray
Weight	0.85 kg

2. Electrical Characteristics

Types	HCS-4340CA/50	HCS-4340DA/50	HCS-4340HDA/50	HCS-4340B/50	HCS-4340DT/50
Interface	1 chairman discussion unit + 1 voting unit + 1 channel selector	1 delegate discussion unit + 1 voting unit + 1 channel selector	1 handheld delegate discussion unit + 1 voting unit + 1 channel selector	4 channel selectors	2 delegate discussion units + 2 channel selectors
Max. power consumption	2.1 W				
Connection	6P- DIN dedicated cable with buckle				

8.3.8 N-series congress unit

8.3.8.1 Physical Characteristics

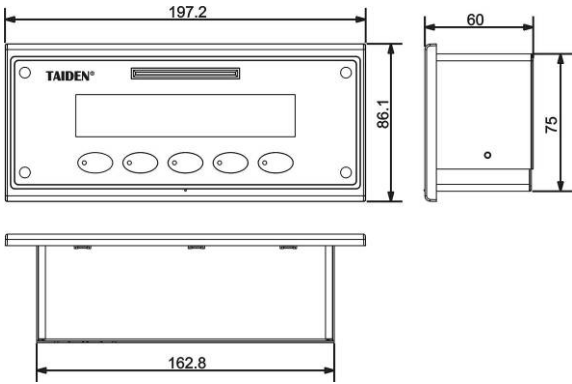
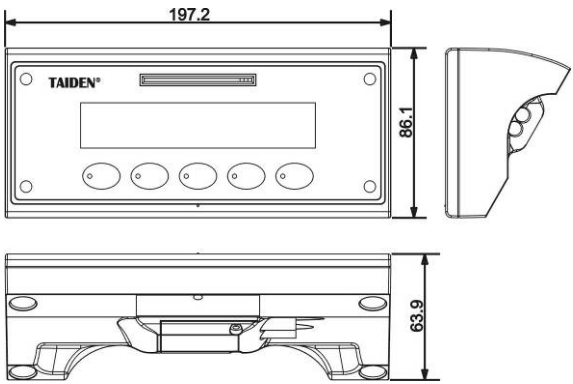
Types	HCS-4841N/50	HCS-4842N/50	HCS-4843N/50	HCS-4843DFE/DFKE/50
Installation	Flush-mounted			
Dimensions (mm)	 Technical drawings of the HCS-4841N/50 unit showing dimensions in mm: - Front view: 111.2 (width), 41.1 (height) - Side view: 82.5 (depth), 32.5 (height), 79.5 (bottom width), 0.5 (thickness) - Bottom view: 87.4 (width)			
Color	Gray/Silver			Silver
Weight	80 g	76 g	93 g	0.5Kg

8.3.8.2 Electrical Characteristics

Types	HCS-4841N/50	HCS-4842N/50	HCS-4843N/50	HCS-4843DFE/DFKE/50
Output frequency response	30 ~ 20000 Hz	-	-	-
Earphone load	-	>16 Ω	-	-
Earphone volume	-	10 mW	-	-
Earphone output	-	Ø 3.5 mm stereo jack	-	-
Connection	CAT5 cable with standard RJ45 plug, connecting to multi-function connector			6P- DIN dedicated cable with buckle
Microphone	Type	Uni-directional electret condenser microphone	-	-
	Sensitivity	-46 dBV/Pa	-	-
	Frequency response	50 ~ 20000 Hz	-	-
	Input impedance	2 k Ω	-	-
	Directivity 0°/180°	> 20 dB (1 kHz)	-	-
	Equivalent noise	20 dBA (SPL)	-	-
	Maximum sound pressure level	125 dB (THD<3%)	-	-

8.3.9 HCS-4368/50 series wired voting unit

8.3.9.1 Physical Characteristics

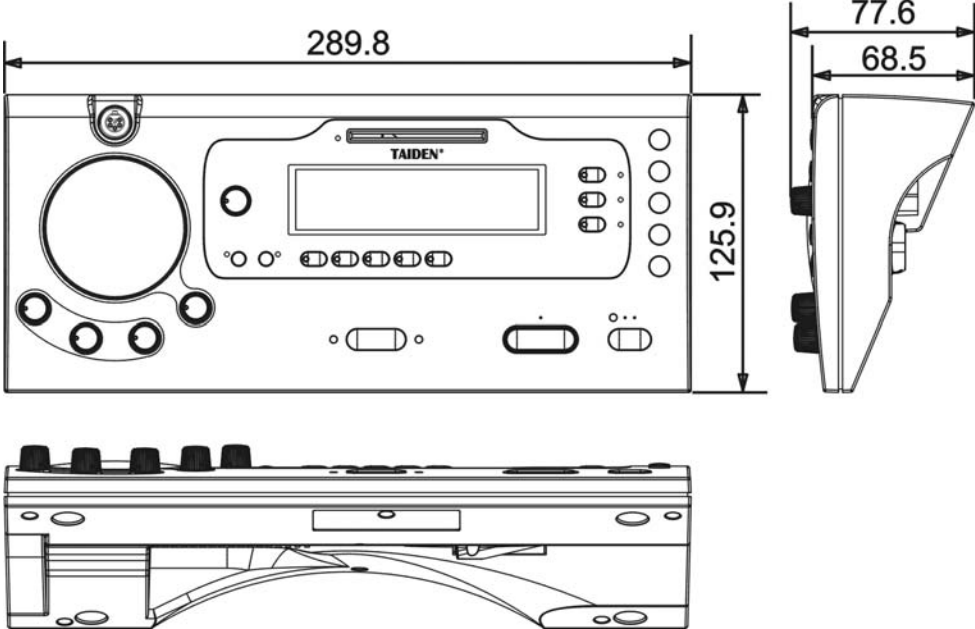
Types	HCS-4368/FM/50	HCS-4368/50
Installation	Flush-mounted	Tabletop
Dimensions (mm)		
Color	Silver/Red	Red
Weight	0.61 kg	0.49 kg

8.3.9.2 Electrical Characteristics

Types	HCS-4368/50
Max. power consumption	2.3 W
Connection	6P- DIN dedicated cable with buckle

8.4 Interpretation unit

8.4.1 Physical characteristics

Type	HCS-4385K2/50
Installation	Tabletop
Dimensions (mm)	 Technical drawing of the HCS-4385K2/50 interpretation unit. The front view shows a width of 289.8 mm and a height of 125.9 mm. The side view shows a depth of 77.6 mm and a mounting bracket depth of 68.5 mm. The rear view shows the unit's profile with various ports and connectors.
Color	Gray and silver
Weight	0.88 kg

8.4.2 Electrical characteristics

Types		HCS-4385K2/50
Output frequency response		30 ~ 20000 Hz
Earphone load		>16 Ω
Earphone volume		10 mW
Earphone output		Ø 3.5 mm / Ø 6.4 mm stereo jack
Max. power consumption		2.8 W
Connection		6P- DIN dedicated cable with buckle
Microphone	Type	Uni-directional electret condenser microphone
	Sensitivity	-46 dBA/Pa
	Frequency response	50 ~ 20000 Hz
	Input impedance	2 kΩ
	Directivity 0°/180°	> 20 dB (1 kHz)
	Equivalent noise	20 dBA (SPL)
	Maximum sound pressure level	125 dB (THD<3%)

8.5 Peripheral equipment and accessories

8.5.1 Microphone (for congress unit)

8.5.1.1 Physical Characteristics

Types	MS24EMB1G/S	MS33EMB1G/S	MS41EMB1G/S	MS47EMB1G/S
Installation	Insert microphone and tighten			
Length	240mm	330 mm	410 mm	470 mm
Color	Gray/Silver			
Weight	75 g	85 g	95 g	105 g

8.5.1.2 Electrical Characteristics

Types	MS24/33/41/47EMB1G/S、HCS-1020
Microphone type	Uni-directional electret condenser microphone
Sensitivity	-46 dBA/Pa
Frequency response	50 ~ 20000 Hz
Input impedance	2 k Ω
Directivity 0°/180°	> 20 dB (1 kHz)
Equivalent noise	20 dBA (SPL)
Maximum sound pressure level	125 dB (THD<3%)

8.5.2 Pluggable stem microphone (for interpretation unit)

8.5.2.1 Physical Characteristics

Types	MS33EPB1S	MS41EPB1S	MS47EPB1S
Installation	Insert microphone and tighten		
Length	330 mm	410 mm	470 mm
Color	Silver		
Weight	80 g	90 g	100 g

8.5.2.2 Electrical Characteristics

Types	MS33/41/47EPB1S
Microphone type	Uni-directional electret condenser microphone
Sensitivity	-46 dBA/Pa
Frequency response	50 ~ 20000 Hz
Input impedance	2 k Ω
Directivity 0°/180°	> 20 dB (1 kHz)
Equivalent noise	20 dBA (SPL)
Maximum sound pressure level	125 dB (THD<3%)

8.5.3 Earphone

■ EP-820AS single earphone

- Cooperates with the infrared receiver or the congress unit
- Hi-Fi sound quality
- 32 Ω , $\varnothing$ 3.5 mm stereo jack
- Frequency response: 50 Hz ~ 20 kHz
- Sensitivity: ≥ 102 dBA/1 mW

■ EP-820BS single earphone

- Cooperates with the infrared receiver or the congress unit
- Hi-Fi sound quality
- 32 Ω , $\varnothing$ 3.5 mm stereo jack
- Frequency response: 20 Hz ~ 20 kHz
- Sensitivity: ≥ 108 dBA/1 mW

■ EP-920BS earbuds

- Cooperates with the infrared receiver or the congress unit
- Hi-Fi sound quality
- 16 $\Omega \times 2$, $\varnothing$ 3.5 mm stereo jack
- Frequency response: 50 Hz ~ 20 kHz
- Sensitivity: ≥ 108 dBA/1 mW

■ HCS-5100PA headphone

- Cooperates with the infrared receiver or the congress unit
- Hi-Fi sound quality
- 32 $\Omega \times 2$, $\varnothing$ 3.5 mm stereo jack
- Frequency response: 20 Hz ~ 20 kHz
- Sensitivity: ≥ 108 dBA/1 mW

8.5.4 Accessories

■ CBL6PS 6 PIN dedicated extension cable

- For extending the connection between the congress system main unit and the congress unit
- One male plug at one end and one female socket at the opposite end
- Length: 3-meter, 5-meter, 10-meter, 20-meter, 30-meter, 40-meter and 50-meter

■ CBL6PP-02 dedicated 6-cord extension cable

- For extending the connection between the congress system main unit and the congress unit
- Male connector at both ends
- 2-meter long

■ HVS-100P video display card

- Cooperates with the voting display system
- Embedded assembly, jack-type

■ 9 PIN RS-232 cable

- For connecting the congress system main unit and the central control system main unit
- One male connector and one female connector
- Length: 3-meter, 15-meter

■ CAT5 cable

- For connecting the PC and the congress system main unit
- RJ-45 crossing-line cable
- Length: 3-meter

■ HCS-4352 6PIN cable distribution unit

- With relay function, for signal regeneration
- 6P-DIN interface with 1 input and 2 outputs
- Input: 2-meter long 6P-DIN male plug
- Output: 6PIN output, can drive 100-meter extension cable

8.6 System connection

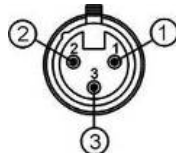
8.6.1 Mains cables

Blue	Neutral
Brown	Hot (Phase)
Green/Yellow	Earth/Ground

8.6.2 Audio cables

3-pole XLR connector (female)

- Pin 1 Earth
- Pin 2 Signal +
- Pin 3 Signal -



Chinch connector (male)

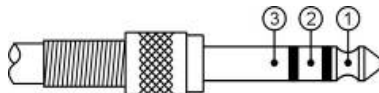
- Pin 1 Signal +
- Pin 2 GND



8.6.3 Earphone

3.5 mm Jack plug

- Tip (1) Signal left
- Ring (2) Signal Right
- Sleeve (3) Electrical earth/screen



8.7 Display language list

№	Chinese	English	Abbreviation	№	Chinese	English	Abbreviation
1	原声	Floor	Flo	32	亚美利尼亚语	Armenian	ARM
2	阿尔巴尼亚	Albanian	ALB	33	阿塞拜疆语	Azerbaijani	AZE
3	阿拉伯语	Arabic	ARA	34	巴厘语	Balinese	BAN
4	保加利亚语	Bulgarian	BUL	35	孟加拉语	Bengali	BEN
5	加泰罗尼亚	Catalan	CAT	36	缅甸语	Burmese	BUR
6	汉语	Chinese	CHI	37	白俄罗斯语	Belarusian	BEL
7	捷克语	Czech	CZE	38	科西嘉语	Corsican	COS
8	丹麦语	Danish	DAN	39	爱尔兰语	Irish	IRI
9	荷兰语	Dutch	DUT	40	哈萨克语	Kazakh	KAZ
10	英语	English	ENG	41	吉尔吉斯语	Kirghiz	KIR
11	芬兰语	Finnish	FIN	42	老挝语	Laotian	LAO
12	法语	French	FRE	43	蒙古语	Mongolian	MON
13	德语	German	GER	44	尼泊尔语	Nepali	NEP
14	希腊语	Greek	GRE	45	塔吉克语	Tajik	TGK
15	希伯来语	Hebrew	HEB	46	泰国语	Thai	THA
16	匈牙利	Hungarian	HUN	47	藏语	Tibetan	TIB
17	印度尼西亚	Indonesian	IND	48	土库曼斯坦	Turkmen	TUK
18	意大利语	Italian	ITA	49	乌克兰语	Ukrainian	UKR
19	日语	Japanese	JAP	50	越南语	Vietnamese	VIE
20	韩国语	Korean	KOR	51	粤语	Cantonese	CAN
21	马来语	Malay	MAL	52	克罗地亚语	Croatian	CRO
22	挪威语	Norwegian	NOR	53	斯洛伐克	Slovak	SLO
23	波斯语	Persian	PER	54	斯洛文尼亚	Slovenian	SLV
24	波兰语	Polish	POL	55	爱沙尼亚	Estonian	EST
25	葡萄牙语	Portuguese	POR	56	拉脱维亚	Latvian	LAT
26	罗马尼亚语	Romanian	ROU	57	立陶宛	Lithuanian	LIT
27	俄语	Russian	RUS	58	乔治亚语	Georgian	GEO
28	塞尔维亚语	Serbian	SER	59	冰岛语	Iceland	ICE
29	西班牙语	Spanish	SPA	60	音乐	Music	MUS
30	瑞典语	Swedish	SWE	61	未知语种	unknown	---
31	土耳其语	Turkish	TUR				

Product index

■ Conference System Main Units

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HCS-4100MB/50	Fully Digital Standard Congress System Main Unit (with discussion, voting, 64 CHs, 256x32 LCD).....	16
HCS-4100MC/50	Fully Digital Standard Congress System Main Unit (with discussion, voting, 256x32 LCD).....	16

■ Discussion units

G-series:

HCS-4886C/50	Fully Digital Congress System Chairman Unit (tabletop/flush-mounting, with discussion, 5 voting keys, IC-Card, 64 CHs, 256x32 LCD).....	42
HCS-4886D/50	Fully Digital Congress System Delegate Unit (tabletop/flush-mounting, with discussion, 5 voting keys, IC-Card, 64 CHs, 256x32 LCD).....	42
HCS-4887D/50	Fully Digital Congress System Delegate Unit (tabletop/flush-mounting, with discussion, 5 voting keys, IC-Card, 256x32 LCD).....	42
HCS-4888D/50	Fully Digital Congress System Delegate Unit (tabletop/flush-mounting, with discussion, 5 voting keys, Chinese panel).....	42
HCS-4888DE/50	Fully Digital Congress System Delegate Unit (tabletop/flush-mounting, with discussion, 5 voting keys, English panel).....	42
HCS-4886X/50	Fully Digital Congress System Operator Unit (tabletop/flush-mounting, for intercom communication, 256x32 LCD, tulip gold panel + grey base)	42

At choice for all discussion units of this series (except operation unit): tulip gold panel + grey base or tulip gold panel + black base

E-series:

HCS-4380SC/50	Fully Digital Congress System Chairman Unit (tabletop/flush-mounting, with discussion, 5 voting keys, IC-Card, 64 CHs, 256x32 LCD).....	55
HCS-4380SD/50	Fully Digital Congress System Delegate Unit (tabletop/flush-mounting, with discussion, 5 voting keys, IC-Card, 64 CHs, 256x32 LCD).....	55
HCS-4380SX/50	Fully Digital Congress System Operator Unit (tabletop/flush-mounting, for intercom communication, 256x32 LCD).....	55
HCS-4382SD/50	Fully Digital Congress System Delegate Unit (tabletop/flush-mounting, with discussion, 5 voting keys, 256x32 LCD).....	55
HCS-4370SD/50	Fully Digital Congress System Delegate Unit (tabletop/flush-mounting, with discussion, 5 voting keys, IC-Card, 64 CHs, Chinese panel).....	55
HCS-4370SDE/50	Fully Digital Congress System Delegate Unit (tabletop/flush-mounting, with discussion, 5 voting keys, IC-Card, 64 CHs, English panel).....	55
HCS-4371SD/50	Fully Digital Congress System Delegate Unit (tabletop/flush-mounting, discussion only).....	55

Product index (continued)

Q-series:

HCS-4365C/50	Fully Digital Congress System Chairman Unit (flush-mounting, with discussion, 5 voting keys, IC-Card, 64 CHs, 256x32 LCD).....	69
HCS-4365D/50	Fully Digital Congress System Delegate Unit (flush-mounting, with discussion, 5 voting keys, IC-Card, 64 CHs, 256x32 LCD).....	69
HCS-4366D/50	Fully Digital Congress System Delegate Unit (flush-mounting, with discussion, 5 voting keys, IC-Card, 64 CHs, Chinese panel).....	69
HCS-4366DE/50	Fully Digital Congress System Delegate Unit (flush-mounting, with discussion, 5 voting keys, IC-Card, 64 CHs, English panel).....	69

M-series:

HCS-4360C/50	Fully Digital Congress System Chairman Unit (flush-mounting, with discussion, 5 voting keys, IC-Card, 64 CHs, Chinese panel).....	83
HCS-4360CE/50	Fully Digital Congress System Chairman Unit (flush-mounting, with discussion, 5 voting keys, IC-Card, 64 CHs, English panel).....	83
HCS-4360D/50	Fully Digital Congress System Delegate Unit (flush-mounting, with discussion, 5 voting keys, IC-Card, 64 CHs, Chinese panel).....	83
HCS-4360DE/50	Fully Digital Congress System Delegate Unit (flush-mounting, with discussion, 5 voting keys, IC-Card, 64 CHs, English panel).....	83
HCS-4361D/50	Fully Digital Congress System Delegate Unit (flush-mounting, with discussion, 5 voting keys, Chinese panel).....	83
HCS-4361DE/50	Fully Digital Congress System Delegate Unit (flush-mounting, with discussion, 5 voting keys, English panel).....	83
HCS-4362D/50	Fully Digital Congress System Delegate Unit (flush-mounting, with discussion, 64 CHs).....	83
HCS-4363D/50	Fully Digital Congress System Delegate Unit (flush-mounting, discussion only).....	83

D-series:

HCS-4330C/50	Fully Digital Congress System Chairman Unit (tabletop, with discussion, 5 voting keys, IC-Card, 64 CHs, Chinese panel).....	93
HCS-4330CE/50	Fully Digital Congress System Chairman Unit (tabletop, with discussion, 5 voting keys, IC-Card, 64 CHs, English panel).....	93
HCS-4330D/50	Fully Digital Congress System Delegate Unit (tabletop, with discussion, 5 voting keys, IC-Card, 64 CHs, Chinese panel).....	93
HCS-4330DE/50	Fully Digital Congress System Delegate Unit (tabletop, with discussion, 5 voting keys, IC-Card, 64 CHs, English panel).....	93
HCS-4332D/50	Fully Digital Congress System Delegate Unit (tabletop, with discussion, 5 voting keys, Chinese panel).....	93
HCS-4332DE/50	Fully Digital Congress System Delegate Unit (tabletop, with discussion, 5 voting keys, English panel).....	93
HCS-4331CB/50	Fully Digital Congress System Chairman Unit (tabletop, with discussion, 64 CHs, speech timer).....	93
HCS-4331DB/50	Fully Digital Congress System Delegate Unit (tabletop, with discussion, 64 CHs, speech timer).....	93

Product index (continued)

D-series(continued):

HCS-4333CB/50	Fully Digital Congress System Chairman Unit (tabletop, with discussion, speech timer & request-to-speak indicator).....	93
HCS-4333DB/50	Fully Digital Congress System Delegate Unit (tabletop, with discussion, speech timer & request-to-speak indicator).....	93
HCS-4335D/50	Fully Digital Congress System Delegate Unit (tabletop, with discussion, 64 CHs, 2 channel selectors, dual IDs).....	93

This series discussion unit has 2 colors available: gray and silver.

L-series:

HCS-4320C/50	Fully Digital Congress System Chairman Unit (flush-mounting, with discussion, 5 voting keys, IC-Card, 64 CHs, stem microphone, Chinese panel).....	103
HCS-4320CE/50	Fully Digital Congress System Chairman Unit (flush-mounting, with discussion, 5 voting keys, IC-Card, 64 CHs, stem microphone, English panel).....	103
HCS-4320HC/50	Fully Digital Congress System Chairman Unit (flush-mounting, with discussion, 5 voting keys, IC-Card, 64 CHs, handheld microphone, Chinese panel).....	103
HCS-4320HCE/50	Fully Digital Congress System Chairman Unit (flush-mounting, with discussion, 5 voting keys, IC-Card, 64 CHs, handheld microphone, English panel).....	103
HCS-4320D/50	Fully Digital Congress System Delegate Unit (flush-mounting, with discussion, 5 voting keys, IC-Card, 64 CHs, stem microphone, Chinese panel).....	103
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HCS-4321D/50	Fully Digital Congress System Delegate Unit (flush-mounting, with discussion, 5 voting keys, 64 CHs, stem microphone, Chinese panel).....	103
HCS-4321DE/50	Fully Digital Congress System Delegate Unit (flush-mounting, with discussion, 5 voting keys, 64 CHs, stem microphone, English panel).....	103
HCS-4321HD/50	Fully Digital Congress System Delegate Unit (flush-mounting, with discussion, 5 voting keys, 64 CHs, handheld microphone, Chinese panel).....	103
HCS-4321HDE/50	Fully Digital Congress System Delegate Unit (flush-mounting, with discussion, 5 voting keys, 64 CHs, handheld microphone, English panel).....	103
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C-series:

HCS-4341CA/50	Fully Digital Congress System Chairman Unit (flush-mounting, discussion only, stem microphone, gray).....	116
HCS-4341CA_S/50	Fully Digital Congress System Chairman Unit (flush-mounting, discussion only, stem microphone, silver).....	116

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C-series(continued):

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HCS-4341CB/50	Fully Digital Congress System Chairman Unit (boundary, discussion only, black).....	116
HCS-4341DB/50	Fully Digital Congress System Delegate Unit (boundary, discussion only, black).....	116
HCS-4341HD/50	Fully Digital Congress System Delegate Unit (flush-mounting, discussion only, handheld microphone, black).....	116

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This series discussion unit has 2 colors available: gray and silver.

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The above of this series voting unit have 2 colors available: gray and silver.

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